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McGowan,
G.

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

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Studies
Winter Sports
Graeme McGowan
-3-3

WINTER SPORTS SURVEY
ARAPAHO AND PIKE NATIONAL FORESTS
WEST PORTAL - BERTHOUD PASS

Graeme McGowan

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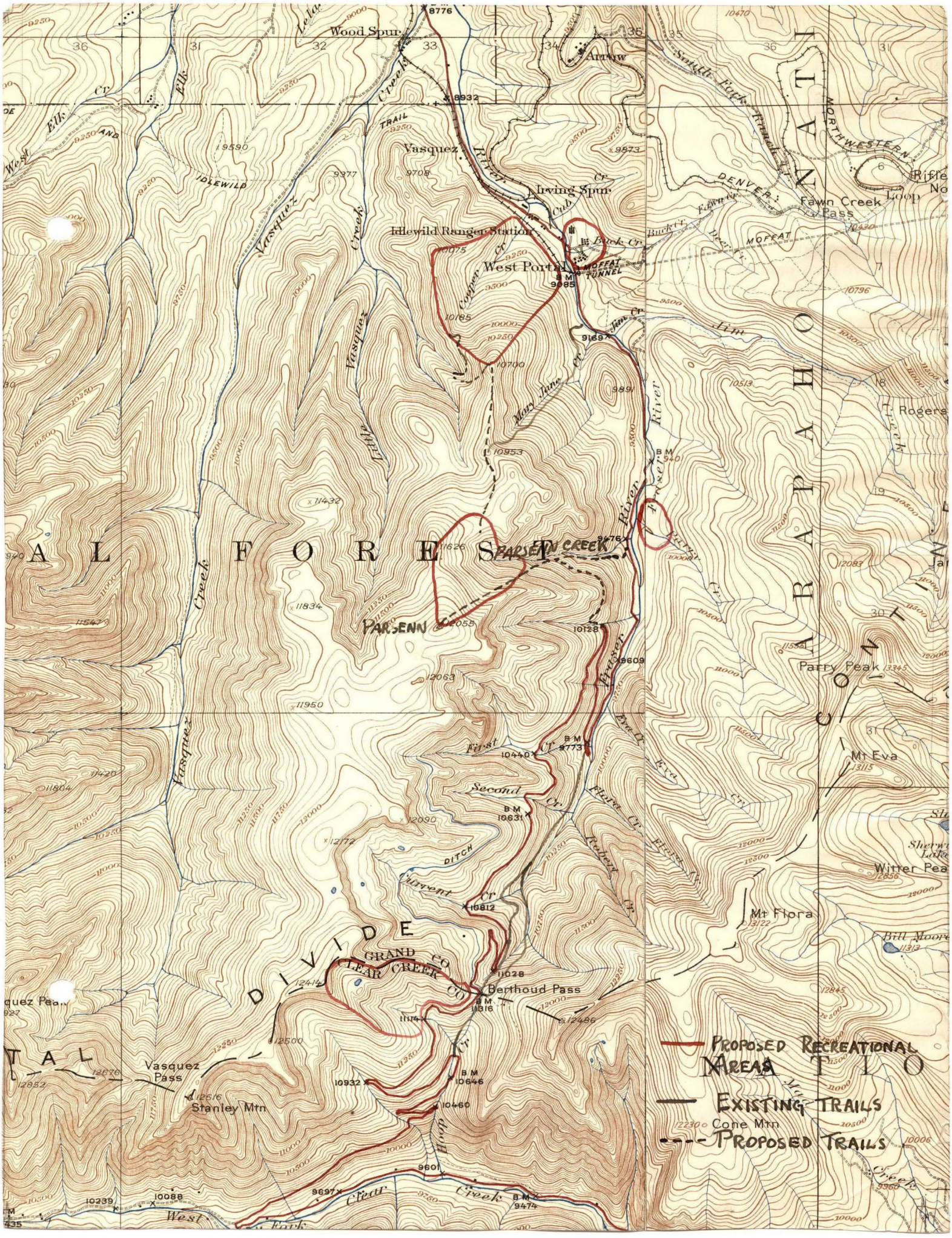
PROPOSED RECREATIONAL AREAS
EXISTING TRAILS
PROPOSED TRAILS
Wood Spur
Arrow
Vasquez
Irving Spur
Idlewild Ranger Station
West Portal
MOFFAT TUNNEL
Fawn Creek Pass
Rogers
Parry Peak
Mt Eva
Witter Peak
Mt Flora
Bill Moore
Berthoud Pass
Vasquez Pass
Stanley Mtn
Cone Mtn
PARSENN
PARSENN CREEK
Vasquez Creek
Fall River
Second Cr.
First Cr.
Fifth Cr.
Ditch
Current Cr.
Robert Cr.
Clear Creek
West Fork
Creek
Arapaho
Divide
Grand Co
Clear Creek Co
Jim Cr.
Man Jane
Cooper Cr.
Buck Cr.
Deer Cr.
Elk Cr.
Idlewild
Trail
Moffat
Denver
Northwestern
Loop
South Fork
Fraser River
Rifle
Fall River
Parsenn Cr.
Fifth Cr.
Robert Cr.
Current Cr.
Second Cr.
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Jim Cr.
Man Jane
Cooper Cr.
Buck Cr.
Deer Cr.
Elk Cr.
Vasquez Creek
Fall River
Fraser River
Arapaho
Divide
Grand Co
Clear Creek Co
Idlewild
Trail
Moffat
Denver
Northwestern
Loop
South Fork
Rifle

View from Berthoud Pass
April 21,1936

UNITED STATES FOREST SERVICE

WINTER SPORTS SURVEY OF THE WEST PORTAL - BERTHOUD PASS DISTRICT

ARAPAHO AND PIKE NATIONAL FORESTS

Grosvenor McGowan

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PREFACE

The report as I have written it is much longer and more detailed than would be necessary for a recreational plan treating the more thoroughly understood summer uses. In compiling the report and making my recommendations I have in almost no instances been on sure ground. Because of doubt I have limited my recommended improvements in such a manner that if carried out they will in no way detract from the scenic or economic value of the forests. I have also made effort to prepare a plan flexible in every direction.

Regardless of what may be done we must expect demands for different or more specialized improvements. During the past two months I have attentively listened to the theories and requests of a great many skiers. I have attempted to give consideration to all ideas. In many instances requests were made for improvements unwise, undesirable, or both. My report attempts to provide a sane answer to any question which may arise.

The district offers four areas of exceptional value for winter recreational developments. The locations and types of terrain naturally indicate a separate kind of treatment for each.

Hoop Creek is an obvious and very excellent location for a general public automobile traveler sort of development. All improvements should be designed to be of the best value to the greatest number of persons.

Cooper Creek falls into a like classification except that it will be patronized principally by train travelers.

The comparative inaccessibility of Parsonn makes it particularly well suited to club and home association development.

The presence of the privately owned Mary Jane Placer Claim makes Mary Jane Creek the only district where anything like exclusive development is possible.

The wisdom of issuing building permits to clubs and individuals has been questioned on the theory that such action might deter construction of the more needed public hotels. It is my belief that any good private houses will actually serve in an opposite manner. Through the indirect publicity of enthusiastic

house owners building the district by mail and word of mouth, hotels will gain materially. However, I am equally certain that any badly located or constructed houses will check if not stop any sound structural improvement progress, and detract from other values in the district.

To date the district has received very little summer recreational patronage. To me the obvious reason is complete lack of comfortable hotel or other living accommodations.

Because of the presence of the highway and the convenience of automobile travel we can honestly consider any feature within an hour's driving time as an attraction of any resort hotel in the district.

On this theory I call attention to excellent skiing above Berthoud Pass as late as July first, the proposed Colorado Mountain Club "high trail," fishing in the Fraser River, mountain climbing, horseback riding, and hunting. During the past winter the Forest Service conducted a careful game count which revealed the presence of over four thousand deer in the Arapaho National Forest. Not to be overlooked is the element of habit. Skiers patronizing an attractive hotel frequently during the winter will need but little encouragement to come again during summer.

Much of the proposed improvement is planned not only to obtain the best recreational values of this particular district but also to lay the foundation and establish a pattern for development in other localities.

Because of present governmental relief measures funds are available now which can not be counted on in the future. In order to provide capital for future development and at the same time relieve the Forest Service of the unrelished-for task of building and maintaining public shelters everything should be done to assist formation of a strong association of skiers, an association which through collection of dues can carry on the development started by the Forest Service and erect and maintain semi-public shelters which will effectively supply public needs. The U. S. Western Amateur Ski Association is a nucleus which may well be broadened to meet requirements.

It is quite surprising to me that private capital has not already entered the winter resort field in this district. I feel confident that with some landscape improvement in Hoop Creek

and Cooper Creek that we will soon receive applications for special use permits. Where and when commercial enterprise enters the field it seems only fair that the burden of expense covering landscape improvements should be at least partially shouldered by those who stand to gain financially. On this theory I feel that the Cooper Creek area particularly should not be fully improved without cooperation of the railroad.

Graham McClemore

PART 1.

PROBLEMS & CONDITIONS EXISTING MAY 1, 1936.

CHAPTER 2

SKIING

JUMPING

Jumping is one of the four major skiing competitions. It is practiced by only a very few present day skiers. With present facilities there is no hill suitable for jumping in the district covered by this survey. Small take offs and landing hills of a temporary nature have been built and used by some on the practice hill on top of Berthoud Pass. This is not satisfactory. Weather conditions, particularly wind, make Berthoud Pass a poor place for a ski jump. The confliction with other activities is not desirable either to the jumpers or skiers participating in other forms of sport. It is important that the finished project include a site to be set aside for the exclusive use of jumpers.

CROSS COUNTRY RACING

Cross Country Racing is one of the four major skiing competitions. This is done over almost any terrain, up hill and down. Though it should be included in every important tournament, it will probably never be as popular as other competitions either with entrants or spectators. There will be time enough to make improvements for cross country racing when and if demand warrants. It is probable that natural conditions will always be satisfactory.

SKIJORING

Skijoring is practiced in several ways. In this district the only way is on the highway behind automobiles. Elsewhere in the state it is practiced also behind a mounted horse. Recognized as the best method is behind an unmounted horse, skier holding the reins. There is very little skijoring in this district. As compared to other forms of the sport it offers little. Skis are quickly ruined by skijoring over the dirty snow such as is on the highway. Most skiers know this and will not skijor for that reason. Skijoring deserves no attention in this survey.

DOWN HILL SKIING

Downhill skiing is the most popular form of skiing. The term does not apply to mere sliding but controlled downhill turning. The relative safety from accident plus the fascination of learning and performing is responsible for its popularity. Most development in the district should be made for the benefit of this form of skiing.

TOURING

Like touring aided by other means of transportation, the lure is the vista around the corner. Nearly all skiers do some touring. Most of it is confined to the immediate vicinity of automobile roads. Some tours cover great distances and reach areas difficult of access even in summer. There is an expressed demand for many trails leading to remoter valleys and mountains. It has been my observation that the skiers capable of making long trips over varied terrain do so with some comfort and derive real pleasure from selecting their own routes. I do not believe construction of trails would materially alter their habits. Those not capable of skiing through a trackless wilderness are better off on the "nursery" hills.

STRAIT RACING

Strait racing, frequently described as downhill racing, or down mountain racing, is one of the four major skiing competitions, and as such, probably the most popular with contestants. It is done over a route which is down hill all the way. The lengths and steepness depend on the ability of the entrants. For first class racing the course should be not less than 2500 feet high and be steep all the way. For lesser competitions the trails down from Berthoud Pass and the Mary Jane Creek race courses are wholly satisfactory. A course suitable for major strait races is desirable.

SLALOM RACING

Slalom racing is one of the four major skiing competitions. Like strait racing it is all downhill. In this respect only are the two similar. In strait racing the choice of route is somewhat optional. Slalom racing is done over an exact route marked by pairs of flags. A slalom may be very simple or extremely difficult. In past years slalom races have been held on Berthoud Pass, in Jim Creek and in Mary Jane Creek. A good slalom hill would be about 600 feet high and steep all the way, some places very steep. It might be thought that since the slalom race

is like an obstacle race, extensive clearing for a course would NOT be necessary. Since it is unfair to permit some competitors familiarity with a slalom and others not, natural obstacles are undesirable. Complete removal of timber is unnecessary but a rather liberal thinning is unavoidable.

WINTER SKIING

In this district skiers have been spoiled by the perfect snow textures which exist almost all winter. Cold, dry, powdery snow is the rule all winter long and a more delightful skiing texture is impossible to find. It is fast, easy to control, and quite safe. Such snow has very little water content and is therefore, extremely light. Falls are easy. If a ski is stuck into the snow it can be pulled out from any direction with almost no effort. So pleasant is this winter condition that a sadly large percentage of skiers give up without a fight when the more difficult spring conditions begin.

SPRING SKIING

Winter conditions are apt to prevail in this district until the first of March. Thereafter snow gradually approaches the late spring texture of "neve". (porous ice) The change is far from uniform or predictable in its various moods. Thawing and refreezing forms crusts of varying density and strength. "Breakable crust" is undeniably difficult and unpleasant. Early thaws effect only the surface of the snow and as days and nights grow warmer the entire body of snow is gradually metamorphosed into neve. During the latter stages and after the completion of this change real spring skiing may be enjoyed. Like winter skiing it is easy but it is not as safe. Due to snow textures fast winter slopes are slow in late spring. Spring skiing is practiced on slopes much steeper than winter skiing. Falls are not easy, spring snow as a landing place is very different from a cement pavement. A ski driven into the snow may be extracted only from the same direction it was driven. Late spring and summer skiing are practiced almost wholly above timberline. No improvements other than convenient hotel facilities are indicated.

VARIOUS TYPES OF SKIABLE TERRAIN

Skiing is possible over almost any terrain provided snow is deep enough to cover most ground obstructions. Due to risk from avalanches in winter and early spring, slopes of over thirty degrees are not safe unless heavily wooded. To any but beginners all slopes up to thirty degrees are skiable since the

grade of ascent or descent is based on the gradient of the traverse rather than the hill itself. Skiing terrains may be classified as "open", "sparsely wooded," "wooded," and "densely wooded." The popular ideal of skiing terrain is vast open slopes. Due to the prevalence of wind this ideal can never be realized in Colorado during winter or early spring. Not only is the wind itself disagreeable but its effect on snow is far from beneficial. Such snow textures as "marble crust," "wind slab," and "shavis" make skiing difficult and far from pleasant. "Sparsely wooded" slopes are very pleasant and quite easy to ski on even for beginners, unless steep. Sparsely wooded slopes can also be adversely effected by wind unless somewhat sheltered by natural features other than the trees themselves. Naturally grown timber stands are considerably denser on north slopes than south. "Wooded" slopes such as are found on south slopes can be maneuvered by any second class skier in reasonable comfort, unless very steep. "Densely wooded" slopes are quite beyond the ability of all but the expert.

NOTES ON DEVELOPMENT AND PARTICIPATION TO DATE

Skiing as a popular sport is in its infancy, at least in Colorado. During the past few years there has been a very rapid growth in the number of skiers, so rapid that proper direction is for the time being, quite impossible. Following the growth have been kaleidoscopic changes in styles of skiing, equipment, choice of terrain, and popular demands. It is probable that the intensity of the sport's growing pains will be greatly lessened within a year or so. If, in the meantime we can obtain ideas from the pioneers, the beginners, the experts, the novices, and other centers; put them all in a pot and season with our own observations we may turn out a palatable stew.

The skiing in this region began in the West Portal district in 1928. There its popularity has grown steadily ever since. The highway was first kept open the season of 1931-32. Almost instantly Berthoud Pass became the most popular center in the state. This position it has retained and now, with greater numbers of skiers is positively congested every Sunday. Most of the present skiers on Berthoud Pass are in the novice stage. At West Portal the average ability is much higher, due probably to slower growth.

Most of the beginners, particularly on Berthoud Pass do not even attempt to "ski." Their activities are confined to wild uncontrolled riding. I am convinced that if future developments are designed to place a little greater premium on skill, proficiency can be hastened and at the same time danger of accidents reduced.

CHAPTER 2

OTHER WINTER SPORTS

SNOW SHOEING

Snow shoeing as an end in itself hardly deserves the name of sport. As the popularity of skiing increases some persons unable to take up this better sport because of age or physical handicap, may still enjoy the mountains in winter through this medium. Snow shoeing does not and never will need any special development.

TOBOGGANING

As a sport tobogganing is in no way to be compared with skiing or other major sports. There are no toboggan "fans". People take up tobogganing for a thrill and are quickly satisfied. Toboggans are dangerous. They are difficult to control. There is always a lot of talk of "toboggan runs". An examination of these requests will reveal that the originators are ill informed novices or persons hoping to gain commercially. The construction of a toboggan slide would be expensive, its maintenance more so and it would be unsightly in summer.

BOB SLEDDING

Bob sledding, as practiced in the Alps, specifically in the Cresta run at St. Moritz is a fine sport though an extremely dangerous one. The cost of construction and maintenance of a bob sled run would be even greater than a toboggan run and would also be unsightly in summer. If anything of this nature is done it should be in a district not particularly valuable either for skiing or summer recreation.

ICE SKATING

Ice skating is, of course, a fine sport. In any ordinary winter it would be impractable in this district due to the certain heavy cost of snow removal. However, any resort hotel would probably profit by having a pond large enough for skating. In past years there have been winters of very little snow fall. In 1932, 1934, and 1935 snow fall was very light up until January. There

is sometimes an advantage to varied sports opportunities. Mr. E. F. Heaton, Supervisor, Arapaho National Forest calls attention to an abandoned dam in Clear Creek on the eastern slope. This is close enough to fit into the general scheme yet has the advantage of the dry eastern slope climate. I know of no immediate demands for development of this nature.

MISCELLANEOUS (Curling, Dog Racing, Sleigh Riding)

Curling is a game somewhat like quoits or bowling, played on ice with misshapen flat irons. (I hope no curling fan sees that.) This is of no great importance but might be a worth while extra activity at a good winter resort.

Dog racing is impractical in this district due to steepness of mountainsides.

Sleigh riding is not very practical since the only road suitable is too frequently kept bare of snow.

Allied sports, sports obviously belonging to summer are, in some cases, suitable in late spring. At the lower altitudes late spring skiing is good only in the morning. Resorts in the West Portal area most certainly should include asphalt tennis courts in their plans.

CHAPTER 3

WEATHER

DIFFERENCES IN ALTITUDE AND SEASONAL CHANGE

There has been a great deal of talk as to the relative merits of Berthoud Pass and West Portal because of different weather conditions. There are advantages to both places and future developments should be based not on the selection of one but the best use of both.

Berthoud Pass is two thousand feet above West Portal, has a season generally beginning one month earlier and lasting two months longer. Berthoud Pass receives nearly twice as much snow as West Portal. Skiing is never good until snow is deep enough to safely cover ground obstructions. In winter there is no advantage to great snow depths. In the case of jumping hills frequent heavy snow falls are a detriment. In spring great snow depths are desired for the simple reason that they last longer. Both West Portal and Berthoud Pass are subjected to frequent severe winds in winter and early spring. The relatively sheltered position of West Portal makes it more desirable in mid-winter and early spring than Berthoud Pass. During early winter and late spring Berthoud Pass has a monopoly.

SNOW CRAFT AND SKI WAXING

Among beginners and an appallingly large number of comparatively experienced skiers there are a lot of frequent complaints about the unfitness of snow for skiing, its stickiness, and its lack of uniformity. This is of course, frequently true if a skier attempts to cope with all conditions in identically the same manner. Snow textures are almost never uniform; time, temperature, exposure, and weather all contribute to the creation of an infinite variety all within a small radius.

After many falls a beginner learns to successfully make Christiania turns on the hard packed "nursery" hill, then tries to apply his new accomplishment off the beaten path. In almost every instance his efforts end dismally in a fall. One can not ski well merely by mastering the dynamics of turning, a thorough knowledge

of snow craft is at least equally essential and much more difficult to learn. An expert skier easily recognizes changes in snow textures even when seen from a half mile away and instinctively modifies his skiing style to cope with varied conditions as they are reached. Due to lack of time, patience, or both, most skiers will never even passably master snow craft. The ideal for them would be in the form of extension of "nursery" hill conditions. This I believe can be done through creation of wooded parks, cleared of all ground obstructions.

Almost equally difficult of mastery is ski waxing. There are two classes of ski wax, "speed" wax and "touring" wax. Speed wax is easy to use since one variety will work passably on any snow texture. A good many skiers make no effort to learn real waxing. Instead they use exclusively one brand of speed wax and attach climbing devices to their skis to aid in ascent. Touring waxes are infinite in variety. There are not only a great many brands but each brand is divided into many waxes of varied texture and consistency. Touring waxes are intended for use both in climbing and downhill running. Different snow textures and temperatures require different waxes or combinations of waxes and different methods of application. Correctly waxed skis are not only easy to climb with but also slide down, smoothly and rapidly. Touring waxes are frequently faster downhill than speed waxes. As in the case of snowcraft, lack of knowledge in waxing will contribute to the popularity of development in confined areas.

CHAPTER 4

EXISTING IMPROVEMENTS AVAILABLE TO SKIERS

BERTHOUD PASS HIGHWAY - TRAFFIC PROBLEMS

The Berthoud Pass highway passes closely all other existing and contemplated improvements. If it were not for the existance of the highway skiing in this district would not be popular and there would be no justification for this survey. In the past few years the Forest Service constructed three ski trails leading from the summit of Berthoud Pass to points lower down on the highway. It is probably principally due to these trails that Berthoud Pass has attained its present popularity. Due to the presence of the highway these trails are "downhill only" trails. The uphill energy is supplied by automobiles on the highway. There were a good many automobiles on the pass every Sunday during the past winter. Congestion was at times rather bad. It has been suggested that due to this congestion a saturation point is nearly reached. An analysis of the situation reveals, inadequate parking space off the right of way at Berthoud Pass, no parking space off the right of way at the lower end of the trails, and a confusion of back and forth traffic.

No matter what is done there will probably always be congestion of traffic due to this latter cause. If much more parking space is provided where needed and rulings forbidding parking on the highway are strictly enforced much of the confusion may be eliminated. If other "downhill only" skiing can be provided by "ski tows" many skiers will willingly park their cars and leave them parked.

THE RAILROADS

Prior to 1930-31, when the highway was first kept open, the D.&S.L.Ry. was the only means of transportation into the district. In spite of the old out of date coaches, the inconvenience of the Moffat station in Denver, the dirty depressing station at West Portal, and excessive rates, many skiers regularly went to West Portal every Sunday via train. This, of course, was almost completely stopped when the highway was reopened.

Now rates have been lowered to a reasonable figure but other conditions remain unaltered. It is almost a certainty that if the Forest Service makes any improvements for skiers in the vicinity of the railroad tracks that the train will again become a popular mode of travel with skiers, even though the railroad itself makes no improvement.

The present arrangement with the D & R G W prohibits local passenger business on the D & S L lines. If the railroads ever hope to develop mid-week business, and surely they do, some other arrangement must be made.

BERTHOUD PASS INN

The Berthoud Pass Inn stands on the Continental Divide at the boundary line separating the Arapaho from the Pike National Forests. The special use permit granted prior to its erection was much more lax in its requirements than regulations call for now. This is unfortunate since it may be quite difficult to correct its present faults.

The main building consists of a dining room about 30 by 40 feet, a kitchen about 12 by 25 feet, a bed room about 12 by 15 feet and two most repulsive toilets.

The building is set on a poor foundation of posts, is built of unpeeled logs improperly chinked. The floor is a single one of matched pine boards inadequately supported by too small joists. The ceiling is open to the sheeting over the rafters except in the dining room where red building paper has been stretched over the log ceiling joists. There are no windows in the dining room. Outside light is adequately supplied by seven double French doors, very flimsy and ill fitting. The room is heated by a smoky fireplace and an old furnace set grotesquely in the middle of the floor. The room is decorated with an ornate bar of the General Grant period, some outmoded show cases, and two stuffed animals, one of which I am told is a wolverine and the other a porcupine, though which is which I can not determine, so much the worse for wear are they. The kitchen is dark, dingy, badly equipped, and badly arranged. I know it is reasonably clean though a casual glance conveys the opposite impression.

The guest cabin is not unattractive though it is certainly not suitable for winter use. It is a frame building, also on a post foundation, sheeted and slabbed on the outside, unfinished on the inside, heated by a small sheet iron wood stoves.

The whole set up is Jerry built from A to Z.

During the past winter the Inn was kept open on request of the Forest Service as an aide in determining actual demand and need for winter hotel accommodations.

Commercially the venture was not successful. I believe this was partly due to a misunderstanding of the terms of the lease. The managers interpreted the phrase "open to the public" to mean a free shelter, not a public restaurant as I believe it was intended. A large number of the Sunday skiers took unfair advantage of this situation and calmly appropriated the dining room for their own free use as a shelter and a place to wax their skis. Some even made a practice of bringing their own lunches into the dining room and usurping space at tables. Their failure to make purchases in payment of the use they received of the Inn may to some extent be explained by the unappetizing appearance of the kitchen, etc.

This does not give us much to go on. Even less satisfactory is the history of the overnight business.

From November 10, 1935 through April 10, 1936, an elapse of 153 days and 22 week ends the Berthoud Pass Inn housed a total of 157 overnight guests registering on 32 different days. Of these 146 were from Denver, 11 from other points in Colorado, and 10 from points out of Colorado. The top overnight bedding facilities are twelve. On one occasion there were 13, on another 14, and another 15. Where the extras were put I do not know.

The figures themselves do not indicate a very great demand for winter accommodations in this district but an examination of the Inn and guest cabin throws an entirely different light on the subject. That any business of this nature was done seems to me a good indication that a demand for hotel accommodations does exist.

It is quite simple in observing the Berthoud Pass Inn to see many small inexpensive improvements which would at least contribute toward making the Inn attractive in appearance. I am convinced that the managers Mr. and Mrs. Paul H. Barnes are quite able to see these needed improvements, and would most certainly make them if their lease were drawn up to justify an investment on their part.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PIKE NATIONAL FOREST

L
Recreation, Pike
(Berthoud Pass)

Idaho Springs, Colorado
May 11, 1936.

Mr. Graeme McGowan,
c/o Forest Supervisor,
Hot Sulphur Springs, Colorado

Dear Sir:

Reference is made to my letter of April 24.

Opportunity presented its self yesterday to obtain certain information from the manager of Glenn Arbor which I hope will be of some use to you.

Five years ago skiing was limited to occasional groups which frequented the vicinity of the Bureau of Public Roads camp between Empire and Berthoud Pass. No ski'ers registered over night at Glenn Arbor during the winter of 1932-33. Three years ago groups of ski'ers started spending the night at Glenn Arbor, going up to Berthoud Pass to ski during the day. Since that time the volume of business during the winter months has increased over 100% each year.

Winter	Over-night ski'ers.
1932-33	0
33-34	76
34-35	190
35-36	318

The above information was obtained during the course of a conversation from Mrs. Anna Guanella and her father. Mrs. Guanella disclosed the fact that over night guests are charged $2.00.

Mrs. Guanella's father was of the opinion the area between Berthoud Pass and Jones Pass held considerable promise for development for winter sports use.

Very truly yours,

E. J. Helmick
Forest Ranger

By: Stanley J. Weston - Acting

(Received after report was written.)
- G.McG. -

GLEN ARBOR

The summer resort hotel of Glen Arbor is located on the Berthoud Pass highway near Empire. Because it is down in the valley conditions in the vicinity are in no way suitable for skiing. Due to lack of accommodations in the ski country Glen Arbor has been receiving an increasing amount of Saturday night patronage from the ski fans during the past two or three years. Again the volume of business does not seem to warrant construction of a hotel but the fact that Glen Arbor, a building not designed for winter use and in a poor location, has done any business is to me a good indication of demand.

FIRST CREEK SHELTER CABIN

In 1933 the Forest Service erected a shelter hut in First Creek, several hundred feet above the highway. This was of an experimental nature. At that time there was talk of a string of similar huts extending indefinitely southward.

The First Creek Shelter hut is not well located. It is isolated not only from the highway as was intended but also from any good skiing terrain.

One of the original purposes was to bring sleeping accommodations within reach of the very high mountain skiing. In spite of the hut's height (11000) it has failed in this respect due to poor location.

In spite of these conditions the hut has been very much used, not by the adept skiers for whom it was erected, but by high school and college boys financially unable to stay at Glen Arbor or Berthoud Pass Inn. It is therefore, to some extent justifying its existence. Whether or not additional free accommodations should be provided for such persons is not for me to say.

COLORADO ARLBERG CLUB HOUSE

The very existence of the Colorado Arlberg Club house is in itself strong proof of the demand for hotel accommodations.

The Colorado Arlberg Club, as it was formed in 1929, was not of a proprietary sort. In this respect it was changed only because of necessity. No private capital had sufficient vision to risk the expense of building a hotel.

The Colorado Arlberg Club house is located on the Mary Jane Placer Claim about one half mile south of the West Portal of the Moffat tunnel. It is one quarter of a mile from the highway and can be reached in winter only by skis or snowshoes.

Construction was begun in September 1933, was sufficiently near completion January 1, 1934 to permit use. Since that time construction work has progressed spasmodically. Plumbing, lighting and heating are still to be properly installed. It is planned to enlarge the building to about twice its present size and capacity, this summer if funds are available.

The club house is cross shaped to simplify enlargement, is divided into 8 rooms, a combined living and dining room, a kitchen separated from the living room by a buffet and bar, four bed rooms and two bunk rooms. There is running water in the kitchen only. The building is heated by sheet iron wood stoves and one fireplace. It is a frame building, covered with slabs. It stands on a foundation of wooden posts sometime to be replaced with a masonry foundation.

Since January 1934 the club house has been filled to capacity almost every weekend during the skiing season. It has been the practice to close the club house during mid-week unless patronage was definitely assured. Last winter the club house was open almost continually.

Due to demand from members of the club for space, the week-end use has been almost wholly limited to members. Mid-week business has been predominately from non members whose residences are out of the state.

The secretary of the club informs me that there is a large number of approved applicants for membership. These cannot be admitted until enlargements have been assured due to inadequate accommodations to care for present members.

HOOP CREEK TRAIL (east side of Berthoud Pass.)

The Hoop Creek trail is a broad clearing following the general course of Hoop Creek. It has its start at the summit of Berthoud Pass and ends in Floral Park at the lower end of the upper switchback on the highway. Because of the rocky nature of the ground the Hoop Creek Trail is not usable until snow has attained a considerable depth. When snow is deep enough the trail is very popular particularly with better skiers, due to its continuous steepness. Thanks to the highway, this trail is "downhill only."

LOW TRAIL (west side of Berthoud Pass)

For the short distance between Berthoud Pass and the lower end of the upper highway switch back the Low trail is a broad steep clearing very similar to the Hoop Creek Trail. Below it follows the old Berthoud Pass wagon road. Except for the very short upper portion this trail

offers little excitement to the proficient skiers except under difficult snow conditions. For the novice it is ideal. All but first day beginners can usually negotiate the lower portion without a fall. This trail is "downhill only."

HIGH TRAIL (west side of Berthoud Pass)

The High Trail begins a few hundred feet up the mountain east of Berthoud Pass, follows the shelf made by a fault down into the Fraser Valley and connects with the Low Trail about a mile from its lower end. This trail is a broad clearing, steep enough to be interesting skiing for anyone. It is "downhill only" except for the brief climb at the start, a trivial matter which nevertheless makes the trail a little less popular than the other two.

THE MARY JANE CREEK RACE COURSE

The Mary Jane Creek Race Course follows a line roughly parallel to the north fork of Mary Jane Creek. It begins at a point on the ridge above the head of Mary Jane Creek identifiable on the USGS Fraser Quadrangle by the marked elevation 10,953. The course is cleared of all trees and brush to widths varying up to 100 feet near the upper end. The race course has a total vertical descent of 1750 feet, is about 9000 feet long. The upper two thirds is in the National Forest, the lower third is in the Mary Jane Placer Claim, which is private land owned by the Colorado Arlberg Club. Due to its location and the necessity for climbing before the downhill run this course, though the best of all four trails, is not nearly as popular. Its use, however, is great enough to justify construction. During the past winter it has received almost daily use.

As a race course it leaves much to be desired. It is long enough, but except for the upper portion not steep enough. There should be at least 750 feet more vertical descent. This can not be corrected because of topography.

BERTHOUD PASS PRACTICE OR "NURSERY HILL"

The Berthoud Pass "nursery hill" is located on the Continental Divide west and adjacent to the highway. The lower portion is broad and nearly level, higher up the steepness increases until near the top it has a grade of nearly 30°. Timber is naturally sparse and improvements have been limited to the removal of very few trees. The ground is turfed and considering the location remarkably free of stones. The hill has two faults. The upper part can not be comfortably used by beginners since all possible routes down are over steep ground. It is wholly unprotected from wind. This is immensely popular, not because of its excellence but because it is the only clear hillside in the district.

THE OLD RAILROAD GRADE (Corona)

The old railroad grade is itself not an asset to skiers because of its too gentle grade. In the district formerly served by the trains on this route are a great many old roads and trails adaptable to ski use. Some of these were quite extensively used before the highway was first kept open in 1931 and before the construction of the Colorado Arlberg Club house on Mary Jane Creek. These changes drew activities to other areas. In the past the old road up Buck Creek was very popular. Should any extensive development take place near or at West Portal, these old roads and trails may again become moderately popular.

CHAPTER 6

OUTSIDE INFLUENCES

PUBLICITY

Much of the development in popular skiing has been due solely to its own merit. This particularly applies the earlier years. The "one man tells another" type of expansion is always slow. In the last two or three years skiing has received an increasing amount of publicity, in motion pictures, in magazines, books, and newspapers. This has not been confined to articles and illustrative pictures directed toward skiers alone but has been used a great deal simply to attract attention, as an advertising gag to aid sales of products in no way connected. This publicity plus the fireside skiing of present fans will probably do much to keep the future growth of the sports' popularity at least as great. All publicity which is beneficial to the sport is also beneficial to any district where conditions make skiing possible. Thus on reading an attractive advertisement of skiing in the Alps a sports fan is first effected with a desire to ski. Lacking the opportunity to go so far he turns to closer play grounds. It is with this thought that I view existing and potential competition.

ESTES PARK AND VICINITY

The Estes Park district is out of the snow belt and should have no effect whatever on development of skiing and should offer no competition to this or any other region suitable for skiing. Lacking proper knowledge the Estes Park Boosters have zealously tried to increase their business by advertising winter sports. The results have been detrimental not only to Estes Park but also Colorado as a whole. I believe that we need not fear further action of this sort from Estes Park.

FERN LAKE

Fern Lake, in the Rocky Mountain National Park, is a delightful place for small group outing. Due to topography and National Park policies limiting development no extensive use is probable. Regardless of what may develop Fern Lake is "desirable competition."

GRAND LAKE

So far there has been no real winter sports development at Grand Lake. There probably will be no development there unless congestion in the West Portal - Berthoud Pass area over flows in that direction.

TRAIL RIDGE ROAD

The Trail Ridge Road crosses the Continental Divide between Grand Lake and Estes Park. At present it is not kept open during winter. If in the future it should be we might encounter a small amount of "desirable competition." In late spring and early summer there are some possible "downhill only" ski runs above timberline. Any competition at that time of year should also be of a desirable nature.

HOT SULPHUR SPRINGS

Natural conditions at Hot Sulphur Springs do not compare favorably with those at West Portal and Berthoud Pass. Last winter the D & S L Ry. and the Rocky Mountain News promoted two or three "snow trains" to Hot Sulphur Springs. These were over advertised and over promoted. Attending sports fans were not pleased. Strangely most of those who came were not skiers but curious spectators, regretably not properly clothed. Hot Sulphur Springs will probably not effect development one way or another.

HILLS CLOSE TO DENVER

In the mountains of the eastern slope near Denver there has been almost no snow in recent years. In the past I have known times when a few sheltered hillsides received enough snow to permit their use as "nursery hills." If future winters produce a recurrence of this condition any development will produce a most desirable type of competition. Echo Lake may sometime receive a fair patronage from skiers. This will be simply an overflow from the West Portal - Berthoud Pass district.

LOVELAND PASS

There is some talk of keeping Loveland Pass open in winter. Natural conditions in this district are, if anything, better than in the West Portal - Berthoud Pass area. This district and this alone may offer real competition. This should not be feared since even now we are faced with problems of traffic congestion on Berthoud Pass. I am personally convinced that any developments for either place, soundly planned and soundly carried out will quickly prove good.

MAJOR RECENT DEVELOPMENTS

As a result of careful scouting and study the Union Pacific Railroad has selected Ketchum, Idaho in the Sawtooth mountains as the site for an expensive and elaborate winter resort. I am convinced that their inevitable advertising campaign will, like the Sun Valley ads, materially boost patronage of the West Portal - Northern Pass area. Any other development of a like nature will also react favorably.

CHAPTER 6

IMPROVEMENTS APPARENTLY NEEDED

INCREASED AUTOMOBILE PARKING FACILITIES

Except for the parking lot on the summit of Berthoud Pass there is no place in the district where automobiles can park or easily turn around except on the highway. There is more parking space needed on the summit. Parking spaces are needed at the lower ends of finished trails. Parking space is needed opposite the Colorado Arlberg Club House. If improvements are made at other places, still more parking space will be needed.

Traffic problems will probably always be serious ones in this district. Much future congestion may be avoided by planning, where possible, future developments which will check rather than increase back and forth traffic.

PRACTICE OR "NURSERY" HILLS

There is need for another practice hill in the Berthoud Pass Region, if possible in a location sheltered from the wind and out of sight of the highway. Even more in demand is one near East Portal accessible to both the railroad and the highway. For the benefit of all concerned activities, to a degree, should be concentrated in as few different localities as possible. It is, therefore, necessary that "nursery" hills be cleared only in places where they may be later enlarged to care for larger crowds.

PARKS

The mountains surrounding the skiing centers in the Alps are free of timber. A skier's choice of route is not limited to a few trips along certain cleared trails. Due to wind and high timberline such action is only rarely possible in this district except to the expert skiers and not to them except when snow is very deep. We are faced with the problem of increasing the skiable terrain and still retaining the full value of the forests as forests. There is a popular notion that the best skiing is over open treeless slopes. In this dis-

trict the best skiing is over thinly timbered slopes. The trees protect the snow from the ravages of both wind and sun. By systematically thinning sections of the forest and removing such ground obstructions as stumps and windfalls, wooded "parks," superb for skiing, will be created. Such parks will be of best advantage when adjoining nursery hills on their upper sides.

TRAILS

Trails as an end in themselves will not prove very popular unless they are of a "downhill only" nature. If they will provide an easy way up to the tops of race courses, up to isolated natural parks, or a short ski route between allied developments, then there is a good demand. Long trails to remote districts will not be much used by the exploration bent expert but may act as an incentive to foolhardy novices not safe off the "nursery hill."

RACE COURSE

The Mary Jane Creek Race Course is the best of its sort in Colorado but is not up to international standards. If local skiers hope to fit themselves for major competitions or hold major competitions in the district it is essential that they have a first class race course. Such a course would have at least 2500 feet vertical descent and be steep all the way.

SLALOM HILLS

A slalom hill is much simpler than a race course to locate. Since most competitions include events of both sort, desired is a slalom hill near the bottom of the race course. Slalom racing is much more of a spectator sport than straight racing, it should interest the railroad to have a slalom hill visible from their right of way.

JUMPING HILLS

So far I have seen no strong demand for a "big jump." There is quite a demand for a practice jump. It is of the greatest importance that a jumping hill be sheltered from the wind. Snowfalls and depths may easily be excessive for the best ski jumping conditions. A practice ski jumping hill is in demand near but not on the needed West Portal nursery hill. Sometime in the future there will be need fo of a "big jump" near the race and slalom courses.

HOTELS

There is immediate need of a hotel somewhere near Berthoud Pass. This should be built primarily for the winter trade and located in the best possible location for skiing. If sanely built and operated, summer business can also be relied upon.

If desired ski improvements are made near West Portal a hotel will be needed as soon as the construction work is completed. This also should be designed primarily for skiers' use. The summer business prospect is fairly good, though less so than Berthoud Pass.

SHELTER HUTS

Shelter huts will be needed at the lower end of each "nursery" hill, at top and bottom of the race course. Hotels will not remove the need of shelter huts since many Sunday skiers are not financially able to patronize hotels, even for lunch.

TOILETS

Included within each shelter hut should be at least two chemical type closets. The outdoor toilets have been proven unsatisfactory for winter use in this district.

HIGH TELEPHONE POLES

From the lower end of the last highway switch back on the west to the lower end of the upper switch back on the east telephone lines are frequently low enough to be a menace to skiers. Due to the fore sight of Ranger D. O. Johnson, wires were raised to a safe height over the trails on the west side. Throughout the entire area poles should all be higher and guy wires replaced with compression brace poles. In the event this need can not be immediately realized I suggest that the worst places be corrected. These are marked by rags tied to wires.

SKI TOWS

The "ski tow" is a quite recent inovation, but has been long enough in use to be proven as practical.

The first ski tows were very simple, consisting of a small power plant, generally a discarded automobile engine, an endless rope traveling around a sheave at the bottom of the hill and an idler at the top. Skiers grasp the rope and are dragged up to the top of the tow. Crude as these are several are in operation in New England and are very popular.

Recently developed is a system much superior. This is an overhead system. The ~~key~~ rope is replaced with a cable which is supported at intervals by idlers on posts. Suspended from the cable at intervals are hooks designed to act as partial seats. This method through a very material reduction in friction both on the rope or cable and on skis is much more efficient. It is also superior from

the skiers'point of view, since the muscular strain on the arms is eliminated.

Most of the ski tows currently in operation are very short averaging less than 1000 feet in length and with an ascent of less than 200 feet. A few, however, are longer. The Mt. Gunstock Ski Tow, at Gilford, New Hampshire is 3100 feet long with a vertical ascent of nearly 1000 feet. This seems to me as approaching the maximum efficient unit. If further altitude is desired I believe relays would be superior to extension.

So far as I can discover ski tows are not dangerous. I can find no record of any accident serious or otherwise. However, in the overhead type of tow it is recommended that the entire length be in plain sight of the operator.

I believe funicular railways or aerial tramways would prove superior to ski tow but the vastly greater cost make them at present seem quite out of reach.

The erection costs of existing tows varied widely. Some made by their owners with a minimum of hired help and second hand materials were very cheap. I am told the Franconia ski tow 900 feet long cost only $375.00. For the longer ones of the improved type I find costs varied from $2000.00 to $3000.00. In an estimate prepared by the Split Ball Bearing Corporation for the Dartmouth Outing Club a price was quoted of $2681.70. This was for a tow about 1100 feet long. The estimate included all working parts of good new materials but did not include foundations, buildings, or intermediate supporting posts. These would probably bring the cost up to a minimum of $3000.00. (see number 12)

Ski tows will be in demand and probably commercially profitable on each "nursery hill."

ORGANIZATION

The development of skiing is without direction or plan. Skiers and clubs are working at cross purposes, if any. Needed is a strong central body, one which will protect skiers from exploitation and their own folly, and one which can largely take over future skiing developments and responsibilities.

PART II

RECOMMENDED FOREST SERVICE POLICIES

CHAPTER 7

TIMBER CUTTING AND THINNING

GENERAL RULES

Permit no timber cutting or thinning except following a thorough study and examination. Groups of skiers, lacking a good knowledge of the district, may ask the Forest Service to make improvements of this nature or ask for permits to do so themselves. In such cases the local ranger should by questioning determine as nearly as possible what sort of improvement is desired and if it is in keeping with Forest Service policies. He should then call attention to other available sites similar in their natural states. Improvements started and not finished, or finished and not used are never good.

PRACTICE OR "NURSERY" HILLS

A nursery hill in order to properly fulfill its purpose, must necessarily be cleared of nearly all trees. A nursery hill planned for use by only a few skiers at one time need not be large, a total area of not over one half acre will frequently be enough. Larger hills are needed as the number of participants increase. One at West Portal may frequently be used by as many as two thousand skiers at one time and must, therefore, be proportionately large. Another nursery hill near Berthoud Pass may prove even more popular than the one at West Portal. Since I am by no means certain of this, the policy to follow is the selection of a site where a large hill is possible and there clear a small portion. Future expansion will depend on actual usage.

The Forest Service has an iron clad rule forbidding any timber clearing within sight of the highway. This should be religiously adhered to but like any other rule may have its exception. No exception should be made without first making a very thorough study followed by an extended period of careful observation.

All nursery hills should be cleared in such a manner as to give the illusion of natural clearings and not artificial ones. No set rules can be laid down for clearing since different natural conditions indicate different methods.

If the area surrounding the nursery hill is covered by a dense and uniform stand of trees, cutting should be complete up to the very margins of the hill. If any trees are left standing on the hill they should be in dense clumps or thickets. Natural meadows found within forests of this nature are almost invariably bordered by timber in this manner.

If the area surrounding the nursery hill is covered by a uniform stand of thinned timber or timber which may later be thinned, the clearing should increase proportionately with increasing distances from the margins. In such cases complete removal should be limited to a comparatively small portion near the middle part of the hill and runout.

If the area surrounding the nursery hill is wooded by irregular, far from uniform type of forest characterizing timberline vicinity the clearing should be limited to accentuating natural conditions by enlarging glades and reducing the number and size of thickets.

All natural obstructions such as rock outcroppings and steep walled ravines should be plainly marked by trees. When possible trees should be left standing to completely surround such features.

SLALOM HILLS

Most nursery hills will prove wholly satisfactory as slalom hills for practice or minor competitions. For major competition there may be need of one hill steeper and higher than is necessary or desirable for nursery hills. Rules governing clearing for nursery hills also apply in the case of slalom hills.

The slalom race is one which has a large spectator appeal. As more people know it for what it is and proficiency of racers increases this appeal will be much greater and may surpass that of jumping. Regardless of what may be said to the effect that skiing is for the skiers and not the spectators, this latter must be considered in developments of this nature. In fact the promoters won't permit them to be overlooked.

A slalom hill must be easily accessible to or visible from an easy avenue of transportation.

In anticipation of future pressure we must select some one site or general location where an exception (if any) to clearing rules may be made.

PARKS

Wooded parks where trees are systematically thinned and where stumps and windfalls are removed will probably prove the most completely satisfactory type of development which can be made in this district. Such development will tend to increase rather than decrease the value of the forests, will improve skiing within its confines to an extent that dangerous expeditions off the beaten path will be much less frequently undertaken, and will provide the best sort of incentive for learning to really ski and not merely "slide."

In clearing excess from wooded parks the first consideration must always be for the benefit of the forests as forests. The second consideration must be for the appearance. A wooded park can not at the same time be a "primitive area" but it need not be a "pruned garden." Clearing and thinning should be done with "studied carelessness."

As in the case of nursery hills no set rule can be applied. Variations in natural conditions indicate widely varied methods of treatment.

RACE COURSES

There is need for only one race course in any one district. If the Mary Jane race course was up to standard it would suffice probably for all time. Since it is not and there is another possible route apparently satisfactory then sometime another course should be built. Should the Loveland Pass district develop then one race course will some time be needed there.

The actual construction of a race course should be spread over a period of three years. Work the first year should be limited to the clearing of a narrow trail over the surveyed route. Work the second year should be limited to conservative widening and possible rerouting. Work the third year should complete all necessary widening. By following this method the very best route is assured and all unnecessary cutting is done away with.

Later discovery of a better possible race course is an inexcusable contingency. Preliminary surveys should completely remove this chance.

JUMPING HILLS

Jumping is the most specialized form of the ski sport. It appeals to very few as participants. The problems of a jumping hill only begin with construction. It needs maintenance and policing. Jumping hills should not be constructed as public ventures but as private or semi-private ones under special use permits.

There are two prime considerations which must be borne in mind when selecting a site. First, is the inevitable detraction from the natural beauty of the forests. When possible, sites should be selected in districts of the least summer recreational value. Second, is the wisdom of avoiding natural and artificial conditions unfavorable to the jumping hill itself.

Except in the case of a small practice hill some ground cutting and filling will almost certainly be necessary. Where the ground is disturbed in this manner it should be carefully resodded to prevent washing and improve summer appearance.

All wooden structures such as take off, scaffolding, judges stands, etc. should be subject to architectural regulations.

TOBOGGAN AND BOB SLED RUNS

Participation in these two sports will probably continue only half heartedly unless some carefully engineered and well constructed bob sled run is constructed and maintained. The cost of this would be very great and would probably not receive enough patronage to justify its erection and maintenance. Such a venture most certainly should be private and not public. Permittees should be required to post a bond large enough to pay for tearing down any structures in the event of failure.

EROSION

By thinning timber and removing stumps and windfalls erosion is inevitably hastened to some extent. This need not be serious enough to deter development of this nature if care is taken to break the surface of the ground as little as possible. Bad washes will rarely occur unless given an artificial start.

What little scoring the ground may receive as a result of actual cutting is negligible and may be disregarded.

Preparatory to burning stumps, windfalls, slash, etc. it will be necessary to haul and pile it short distances. In many instances much of this work can most efficiently be done with horses and log chains. Great care should be taken to prevent long hauls and to avoid too frequent use of the same route.

In some instances it may be desirable to completely remove stumps rather than merely saw them close to the ground. When this is done the holes should be carefully sodded.

It is probable, particularly in the case of nursery hills, that many saw logs will be cut. In such instances they should be stacked but not skidded away until the ground is frozen and covered with a protective layer of snow.

When cuts or fills are necessary, as may be the case with ski jumps or bob sled runs, all raw ground should be resodded.

It may seem inconsistent that such care should be taken in making improvements of this nature when so little is done with roads and trails. My answer to that is clearing of this nature is with natural water descent and not accross it and more care should be taken with roads and trails.

CHAPTER 8

BUILDING PERMITS

ARCHITECTURE

Mere selection of an apparently suitable floor plan and use of acceptable materials in no way guarantees a finished structure of pleasing design or good construction. No special use building permit should be granted until complete working drawings have been submitted and approved not only by the local Ranger and Forest Supervisor but also by the Regional Forester.

The style of architecture and the sort of materials used may and should vary widely in order to fit the background of each location. Varied architectural styles in the same location or even similar locations are not desirable. It is quite obvious that a building highly suitable in a forest glade would be out of place on a knoll at timberline. Beyond such generalities I am not qualified to make recommendations. Having designed and built several houses I know my shortcomings!

INTERIOR DECORATION

Interior decoration is a problem the Forest Service has so far seen fit to overlook. After having my senses thoroughly offended by the messy interior of Berthoud Pass Inn and other cheap resorts I am convinced that all public or semi-public buildings should be subject to strict regulations both inside and out.

MATERIALS

Good buildings can be built only with good materials and the right materials. This does not always mean expensive imported lumber, brick, etc. When good native materials are available they are beyond doubt the best for buildings of this sort. A makeshift use of that which is merely close at hand should be prevented. For log buildings or slab sided buildings native materials are not only acceptable, they are unquestionably the best.

ROCK QUARRY

Building stone, even in the Rocky Mountains is not always available in large quantities. This applies particularly to this district.

Rustic masonry requires the use of weathered and lichen covered stone, stone which has lain in small pieces exposed to the weather for years. In most places such stone may be found scattered over the mountain sides but not in great enough profusion to care for more than the most modest building needs.

Adjacent to the Arapaho National Forest in the NW¼ of the NE¼ of section 33, T. 1 S., R. 75 W. is a large rock slide offering an almost unlimited supply of excellent building stone. It is easily accessible to trucks except during high water periods on the Fraser River.

I recommend that the Forest Service acquire this land and generously encourage its use.

SPECIFICATIONS

There is an undesirable practice in this district of building houses close to the ground. This is done to prevent drafts under floors. As any builder knows floors and joists need lots of ventilation to prevent early rot. There should always be at least two feet clearance between joists and ground. Floor warmth should and can be insured through proper construction.

Other offenders are flues, particularly fireplace. Flues amply large at sea level are way too small at this altitude. The absolute minimum size of fireplace flues in this district should be not less than sixteen inches in diameter. Fireplaces are frequently badly designed and built in more ways than this.

Specifications on roof construction are deserving of particular attention. That roofs must be designed to stand up under very heavy snow loads is obvious. Less obvious is the effect of redistribution of the load and formation of ice. As internal warmth melts snow on the roof water runs down to refreeze as ice on the eaves, thus forming a load of tremendous weight. All eaves should be short and of great strength. I have been toying with the theory that a "closed cornice" would introduce a nearly equal roof temperature to the extreme edge of the eave, thus eliminating wholly formation of ice at this place. Shingle roofs are not satisfactory except for very steep roofs of simple design. Ice "backing up" in valleys makes adequate flashing almost impossible.

Specifications of other features offer no peculiar problems.

SUPERVISION

A deploringly large number of special use residences and resorts are built by inexperienced and unqualified labor with most depressing results. No buildings should be permitted except under the direction of an approved foreman.

All buildings under construction should be frequently inspected by Forest Officers who should overlook no deviation from plan or specification unless it be one of unquestionable merit. Other changes should be subjected to as careful scrutiny as the original plans.

SANITATION AND DISPOSAL OF REFUSE

The problems of sanitation and trash disposal are much more difficult in winter than in summer.

In New England the usual type of outdoor toilet is not allowed in connection with ski huts. All toilets must be of an approved chemical type or standard water plumbing.

I recommend that all buildings from huts to hotels be equipped with either chemical or water closets, these to be installed under the same roof as living quarters.

The usual garbage pit is obviously unsatisfactory here in winter. All garbage or combustible trash should be burned promptly before it accumulates.

A more difficult problem is the disposal of the cans and glass receptacles. The present practice is to pile them in the snow and attempt to clean up in late spring. This rarely is completely satisfactory and frequently far from it. The agencies of wind and water frequently scatter refuse far and wide.

I suggest that during winter all tin cans and bottles be rinsed clean and placed in an indoor container to be periodically hauled away or disposed of in the usual approved manner after the snow is gone. To save space cans may be easily mashed flat.

HOTELS, RESTAURANTS, STORES, FILLING STATIONS, ETC.

Regulations governing such structures as set forth in the present Lands Handbook are completely satisfactory except for the omission of regulations governing interior decoration. Interior decoration should be treated as equally important.

All such structures in this district should be designed primarily for winter use.

CLUB HOUSES

Club houses should be treated exactly as hotels except that financial ability to operate need not be proven. It can safely be assumed that a club is assured of patronage from the start.

RESIDENCES

As evidenced by existing structures regulations governing residence permits are not sufficiently strict. An examination of the Lands Handbook reveals the following: -

"Residence Permits"

"It is not the desire of the Forest Service to push an aggressive sales campaign for summer home permits. We want the business of course, but only to the extent that we get the type of developments that harmonize with proper and fully correlated uses of the Forests. In short, we want summer homes that will add to and not detract from the public value of the Forests. Furthermore, we want a summer home permit to represent a cherished privilege to its holder - not something to be bought over the counter by any one who can pay the price. We want high standards of beauty in design, materials, location, and maintainance. This does not mean high priced construction. There is a wide field for the permittee of moderate means to use ingenuity in erecting satisfactory improvements. Some of our most charming summer homes have been surprisingly inexpensive. However, the permits involving the smallest investment will require the greatest amount of planning and the largest amount of administrative supervision."

There is a lot of meat in that paragraph. If all action were governed by the intent expressed therein present difficulties would be far less. Regretably, succeeding paragraphs tend to weaken rather than strengthen our stand.

"A fixed requirement is that no special use residence permit be issued until the applicant has furnished a plan, sketch, or description of his improvements for the approval of the Forest officer."

If the Forest officer is a stickler on design, materials, etc. a competent judge of such matters, and can spare time from his routine duties, then it is probable that the finished structure will be fully up to Forest Service intended standards. Among laymen Forest officers are superior judges of construction and design. If "superior judgement" were adequate, architects would starve. To eliminate vagueness and insure good design this clause should be modified to read &----

"A fixed requirement is that no special use permit be issued until the applicant has furnished a copy of complete, accurate working plans and elevations and detailed specifications of his improvements for the approval of the Regional Forester"

Such action may curb to some extent desirable building but will at the same time greatly reduce shoddy, Jerry construction.

"The standards of design, however, may be safely modified by common sense principles as between different locations. In other words an isolated residence, situated well out of sight, in an unfrequented gulch, need not conform to as high standards of design, materials, and cost as a residence located in a popular well frequented group."

The above is a direct invitation to lameness and has been used as an excuse for granting undesirable permits. The isolated cabin will always be a nuisance unless the value is great enough to insure a prideful ownership. It is highly appropriate the isolated cabins be to some extent rustic, or even crude, but not sloppy. I do not see any particular need for this clause but if left in, it should be corrected to read -----

"----an isolated residence, situated well out of sight, in an unfrequented gulch need not conform to the same standards of design materials and cost as a residence located in a popular, well frequented group but must be treated with at least equal care."

SHELTER HUTS

Shelter huts should be subject to the same regulations as residences.

BILL BOARDS AND SIGNS

Policies governing signs as set forth in the Lands Handbook are entirely satisfactory as far as they go.

I recommend that for this district a distinctive style of sign be adopted and used throughout for all purposes, whether they be advertising, directional guides, or identification.

There are two kinds of signs that are always seen, those which rudely slap us and those which we look for. Neat, uniform signs serving a worthy purpose may be the very best aid to effective advertising, even though the actual colors of the sign blend rather than contrast with the background.

ADVERTISING

Refering again to the Lands Handbook under "Resorts, etc. - Advertisements, Misleading:" I find the following regulation: -

"The permittee, in his (its) advertisements, signs, circulars, pamphlets, letterheads, or like material, shall refrain from misrepresenting in any way either the accommodations provided or the status of his permit or the area covered thereby tributary thereto."

That is plain enough but provides no satisfactory method of enforcement. Appended should be something as follows: -

"He (it) shall submit copy of all such advertising media to the Forest officer before its release."

SKI TOWS

Ski tows may prove commercially profitable to the extent where the Forest Service may in fairness make a fairly large rental fee for the use of land. We have to face an experimental stage of development and it is therefore, wise that no long time permits be granted and that rentals be low.

Much of the material used in the construction of a ski tow will have no salvage value in the event of abandonment. Provision should be made to care for possible clean up should the project be discontinued.

All sheds, etc., should be subject to strict building regulations.

FENCES

No fences of any sort should be permitted where they can possibly interfere in any way with skiing.

CHAPTER 9

ORGANIZATION OF SKIERS

THE COLORADO MOUNTAIN CLUB

During the early days of high mountain skiing practically all expeditions were planned and led by thoroughly competent members of The Colorado Mountain Club.

As popularity of skiing has increased the Colorado Mountain Club has continued to contribute to the same development but no longer attempts to directly govern activities.

Today there is a very great need for a strong governing body to guide and direct present and future skiing activities, not only in this particular district but also through out the entire Rocky Mountain Region. To perform this task no better organization than the Colorado Mountain Club could be found yet due to the existance of many other unconnected activities and fairly strict membership requirements some other body must be found or created.

THE UNITED STATES WESTERN AMATEUR SKI ASSOCIATION

The United States Western Amateur Ski Association has in the past concerned itself only with promotion and direction of ski tournaments. In this respect it has done fine work but has gained neither strength nor riches. If the activities of this organization can be broadened to include service and guidance to all skiers instead of merely a few, then the U.S.W.A.S.A. is the body most easily adaptable to our purpose. If this can not be done then the simplest plan will be the formation of an entirely new organization.

ALLIED CLUBS

With the present setup the entire revenue of the U.S.W.A.S.A. comes from dues and fees paid it by member clubs. To the best of my knowledge all ski clubs in the Rocky Mountain Region are members. This is a desirable condition and one which most certainly should be retained. As in the case of any change there is bound to some dis-

sention. Alterations in the constitution or by-laws of the USWASA should be, where possible, in the form of additional provisions and not modifications. Anticipated revenues should be budgeted as definitely as may be done within reason.

INDIVIDUAL MEMBERSHIPS

The principal source of revenue can and should be in the form of dues paid by individual members. There is no provision for individual memberships.

If definite services of a superior nature can be offered there should be very little difficulty in quickly building up a very large membership of this sort. In its condition the U.S.W.A.S.A. can offer nothing.

SHELTER HUTS

Once on a financially sound basis the U.S.W.A.S.A. can offer many great services which in themselves will assure a large continued membership. Not the least of these services will be the erection and maintenance of shelter huts. The Forest Service can hasten the development of this desirable condition by erecting one or two good shelter huts in carefully selected locations and leasing the finished structures to the U.S.W.A.S.A. at a low figure. Such action will not only aid the U.S.W.A.S.A. over the early stages but will also relieve the Forest Service of the unwished task of maintaining and policing a public building.

CLUB HOUSES

More elaborate structures can be expected to come later as the popularity of skiing increases and membership in the U.S.W.A.S.A. gains. This may be done directly or through agreement with private enterprise.

Affiliated clubs or clubs wholly independent will unquestionably want to build small club houses. Permits for such as these should be granted only on the approval of the parent organization. Such action will strengthen the U.S.W.A.S.A. Agreements holding the U.S.W.A.S.A. responsible for abuses will protect the Forest Service from much fussy detail.

RESIDENCES

Residences also should be permitted only on the approval of the U.S.W.A.S.A. Such action as this follows the provenly successful plan of Summer Home Associations. (Lands Handbook)

POLICING, HAZARDOUS TRIPS, AND RESCUE PARTIES

Abuses of privilege and sound judgment can be reduced to a minimum if definite rules of behavior are punishable by suspension or expulsion. An organization of such powers as I have outlined can make it quite impossible for undesirable persons to ski. It can also arrange for efficient voluntary policing and rescue parties at no great cost. It is the practice of the Ski Club of Great Britain to classify its member skiers as to proficiency and proven judgment. Feeble attempts of a similar nature have been made here. Given teeth the U.S.W.A.S.A. can apply the principle with force and to good effect.

COOPERATION AND PLANNING

If such an organization had been in existence and properly functioning a year ago much of the congestion of traffic on Berthoud Pass might have been avoided both through provision of additional parking space and policing and cooperation on the part of the skiers in handling traffic.

The lack of understanding between the skiers and Mr. and Mrs. Barnes of the Berthoud Pass Inn could have been greatly reduced if not wholly eliminated.

Services of commercial institutions supplying transportation, supplies, and publicity can also be improved through cooperation and planning on the part of the skiers.

POLITICS AND LOBBIES

In the past we have seen some unreasonable demands made for patenting special use permits, and for more and more in the form of governmental subsidy.

By aiding the organization of what may become a very strong body to some extent political we may be assisting in the birth of a monster destined to sometime attack us.

As a guard against such a contingency it would be well to have a definite understanding on this matter before any permits are granted.

To further safeguard our position we would do well to insist on a directorate made up wholly of active skiers and men whose interest is known to be primarily for the benefit of the sport. In the past some of the ski clubs have been directed by men whose interest was commercial and not recreational. The results were as could be expected.

To assure future direction of a good sort, directors should be elected for a period of about four years and terms should expire on the stagger system.

CHAPTER 10

PHYSICAL HAZARDS TO SKIERS AND RESCUE PARTIES

AVALANCHES

Of all elements of risk to skiers avalanches come first. In this district the risk is very slight as compared to districts less well protected by forests. We are further protected by the disagreeableness of snow textures and the severity of winter weather above timberline.

To further reduce the risks we can refuse all improvement permits in areas subject to avalanches and make none ourselves.

In some cases natural routes of travel may develop through danger areas. By clearing good safe trails which will supplant these natural routes further protection may be assured. A specific instance of this is the First Creek to Mary Jane Race Course route which can be eliminated through construction of the "up trail" described in Chapter 29.

COLLISION AND FALLS

Most of our accidents are the result of collision or fall. The proportion of accidents of this nature can be reduced only through increased instructions in the art of skiing and education in accident avoidance. On this score little can be done directly except through cooperation with the ski clubs, particularly the U.S.[illegible].S.A.

Indirectly we can do much by designing landscape improvements to place a premium on skillful rather than merely fast skiing. Good design such as I have described will do much in this direction. Without some skill no skier can make a continuous downhill run through the trees. The novice will make a safe, unscheduled "schussplatz" rather than collide with a tree.

EXPOSURE

Exposure following accidents is frequently more serious in its effects than the accident itself. Of greatest importance is quick removal of injured persons to a place where they can be properly cared for. Indirectly we can reduce risks of this nature by designing improvements which will encourage skiing near good avenues of transportation.

RESCUE PARTIES

Expeditions of rescue are very serious undertakings and with a little consideration from skiers should be wholly unnecessary. Rescue trips are almost always made AT Night under bad conditions with very little chance of success and much chance of frozen hands or feet if not worse. Any sanely led party of skiers should and always can conduct their expedition so as to involve no other persons. This is a matter for the attention of the U.S.S.A.A.

PART III

THE RECONNAISSANCE

CHAPTER II

METHOD OF PROCEDURE

CONSIDERATIONS

Before planning any actual program of development it was of essential importance that all possible districts be carefully observed under as nearly as possible the same conditions of snow texture and weather. It was further essential each district of any possible merit be observed under as many different conditions as could be.

Districts naturally fall into separation by watersheds. Each watershed was first classified according to risks of accident from avalanche, next according to skiing conditions in the natural state. A factor of great importance was accessibility to highway or railroad. This was given no consideration until after, by theory of elimination, several sites were selected.

Final selections were made after carefully balancing all conditions; safety, natural merit, accessibility, desirable improvements, adaptability to improvement, and Forest Service Policies.

TOPOGRAPHICAL GEOLOGY

Not important to this survey but possibly of value to explorers of other districts in the Rocky Mountains is a picture of the phenomenon of topographical geology resulting principally from glacial action.

At a geologically recent date all the high mountains forming the Continental Divide ranges were covered with an ice cap similar to that now over Greenland. As the ice cap receded it was broken up into glaciers lying in valleys probably existent before the ice age. Among such valleys were, the Fraser, Vasquez, St. Louis and Jim Creek on the western slope and South Boulder and Clear on the eastern.

The results of this glacial action in the Fraser watershed forms a good pattern which is roughly followed by all the others and probably demonstrates rules more or less observed in other districts.

Typical glacial topography is discernable from Berthond Pass to West Portal. Glacial action most certainly took place below West Portal but subsequent erosive agents have obliterated all evidence except boulders. When the glacier had receded as far as West Portal it filled the valley in increasing depths up to several hundred feet as it neared Berthoud Pass. In this stage it probably remained a long time. On the west all tributary valleys were filled with glaciers from Current Creek to Cooper Creek. All of these small tributary glaciers ended abruptly against the big Fraser glacier. In every instance the small glacial valleys are supplanted with ravines caused by water erosion at the point where the big glacier was reached. Today the depth of the big glacier at any point can easily be determined by the height of the hanging valleys. At this period the greatest depth was nearly 500 feet opposite Parsons Creek.

As the big glacier receded further the small glaciers receded also leaving the hanging valleys intact.

The glaciers in lower valleys completely disappeared long before the upper ones which in some other districts still retain remnants (Sprague, Hallets, Arapaho) Thus the cirques in Cooper Creek and Mary Jane Creek have long ago been modified by other erosive agencies and Current Creek might have been vacated only yesterday.

Watersheds on the east of the Fraser show almost no evidence of glacial action, being ~~found~~ FORMED almost wholly by water erosion.

As we will see the glacial type of erosion is superior for skiing and best when modified by other agencies.

CHAPTER 12

EAST SIDE OF FRASER RIVER, JIM CREEK TO RANCH CREEK

JIM CREEK

Jim Creek is a broad typical "U" shaped glacial valley walled with mountains too steep in most places for skiing except near its mouth where the topography is good. The headwaters are in a glacial cirque dangerous because of avalanches.

In 1925 there was a bad forest fire destroying all growth in the lower portion of the valley. Lacking the protection from wind by trees the snow is most generally made unfit for pleasant skiing. This same lack of protection would frequently make conditions too uncomfortable to enjoy even best snow.

For a short time, usually in April, when the sun makes possible a hard firm crust and modifies the effects of winter winds skiing is good.

Until this district has become reforested I do not recommend improvement or development of any sort.

BUCK CREEK

Buck Creek and its tributaries offer very pleasant and relatively easy skiing through forests of a desirable density. There are no high mountains rising directly from it. Chance of a good nursery hill has been stopped by the diversion canal. Situated near its mouth is the Moffat Tunnel construction camp which may influence private development.

CUB CREEK

Similar in topography but smaller and more densely timbered than Buck Creek is Cub Creek. It is superior because the diversion canal does not touch it. Demand for development at present unlikely but may come to light if the construction camp is converted to recreational use.

ARROW

Pleasant skiing of a very easy sort is possible in a relatively small confined area near the old railroad station of Arrow. The setting of Arrow is very beautiful. The views of James, Bancroft and Parry Peaks are difficult to equal. I would never think of recommending this district for the skiing alone but there may be something there which would appeal to private enterprise. A drawback is lack of transportation. This is made more serious since ski routes leading to and from Arrow are not exciting.

RANCH CREEK

The upper portion of Ranch Creek, that which is accessible to the old railroad grade, has very little standing timber and might consequently be considered ideal for skiing but unfortunately it is directly exposed to prevailing northwest winds and is therefore, not good. The little basin south of the railroad is sufficiently sheltered to be good. However, unless the railroad is reopened, development would be unwise.

THE DIVERSION CANAL

Extending across Jim Creek and Buck Creek is the newly constructed Denver Water Board diversion canal, a great ugly scar across the landscape. This presents an almost impassible barrier to skiers. True, it can be bridged but mere bridging will never offset the damage done.

CHAPTER 13

EAST SIDE OF FRASER RIVER, JIM CREEK TO BARRHEAD PASS

FIRST STREAM SOUTH OF JIM CREEK

The watershed drained by this stream has a good deal of merit. The topography is good for a variety of skiing and it rises to a height almost enough for a downhill race course. If it were not for the diversion canal which nearly ruins the lower slopes and the superiority of areas on the west of the Fraser River I would at least suggest it be reserved for future development.

PARRY CREEK

Exceptions to the geological rule of glacial cirques on the east of the Fraser River are the headwaters of Parry Creek. Each fork rises in a glacial cirque. This is due to the wind break offered by Parry Peak rising high to the east. The skiing in these cirques is very fine but below the steepness of the mountains and the narrowness of the ravine through which Parry Creek flows make the district valuable only as a supplement to other developments.

EVA CREEK

Eva Creek is a steep narrow ravine, menaced in its upper portion by avalanches. It is not suitable for development.

FLORA CREEK

Flora Creek is a steep narrow ravine, menaced in its upper portion by avalanches. It is not suitable for development.

ROBERT CREEK

Robert Creek is a steep narrow ravine, menaced throughout its entire length by avalanches. It is not suitable for development.

FIRST STREAM SOUTH OF SCARLET CREEK

This stream flows through a steep narrow ravine, marked throughout its entire length by avalanches. It is not suitable for development.

CHAPTER 14

EAST OF THE CONTINENTAL DIVIDE, NORTH OF BERTHOUD PASS

GENERALITIES

As a general rule snow conditions for skiing on the eastern slope of the Continental Divide are way inferior to those on the western. As far as I know there is no place on the eastern slope in the entire state of Colorado having possibilities for development comparable to the West Portal - Berthoud Pass region. For this there are excellent reasons. All "general" storms follow low barometric areas in a general south easterly direction. In crossing the Continental Divide the precipitation point is inevitably lowered causing a heavy snow fall on the western slopes. This would normally reach its peak at the summits but because of wind the greatest snow depths are actually found on the lee or east side of the Continental Divide in high glacial cirques and in small high valleys running north or south. Thus, though in certain too high sheltered spots, snow reaches tremendous depths, the general rule is that snow on the eastern slope is rarely deep enough for safe or pleasant skiing. The very smallness of the good snow areas on the eastern slope is against their ever offering serious competition to the western. The sheer cliffs, and the steep rock walled valleys which characterize the awe inspiring grandeurs of the much touted Rocky Mountains are almost always on the eastern slope. Such scenery is fine to look at but for skiing the more mature and rounded mountains of the western slope are much better.

Though there are no doubts in my mind as to the superiority of skiing on the western slope I consider it of some importance that we give thought to the pleasure of skiers living in communities not readily accessible to the western slope.

SOUTH BOULDER CREEK

About one mile above East Portal on South Boulder Creek snow reaches a uniformly adequate depth for good skiing. In the immediate vicinity there is chance for a good nursery hill.

Following the rules as I have recorded them above, the canyon walls are too steep and rocky for safe or pleasant skiing. The skiable terrain is largely limited to the valley floor.

A great deal of the pleasure of skiing is traceable to the spectacular background. Reachable by ski from East Portal are twelve or more very beautiful mountain lakes.

I can discover no existing demand for development in South Boulder Creek.

ST. MARY'S GLACIER

St. Mary's Glacier is a large snowbank, only technically a glacier, located above St. Mary's Lake on Silver Creek. An automobile road reaches above the town of Alice to a point about one mile from St. Mary's Glacier.

It has in the past been spasmodically popular throughout the winters with a considerably large number of skiers. The glacier is a steep expanse much larger than the nursery hill on Berthoud Pass. I have never seen enough snow in the vicinity to make skiing possible except on the glacier itself.

As in the case of other high exposed snow fields skiing is much better in late spring than in winter.

There is no additional development indicated except the possible extension of the road and additional shelter near the glacier.

CHAPTER 15

EAST OF THE CONTINENTAL DIVIDE NEAR BERTHOUD PASS

FLORAL PARK

Floral Park is situated on the Berthoud Pass highway at the lower end of upper switch back on the east side. It is quite possible to broaden the Hoop Creek trail at this point and make a good, though small nursery hill. This district is already popular and any development would be well received. However, I do not recommend any development because such action would tend to unnecessarily increase traffic congestion.

WEST FORK OF HOOP CREEK

The west fork of Hoop Creek above the highway is one I have selected for major development. See Chapter 21.

FIRST STREAM WEST OF HOOP CREEK

Much of this watershed offers very fine natural skiing. With landscape improvements it could be made excellent. However, I do not recommend development because of serious risk from avalanches in the upper portion.

AREA LOWER DOWN THE HIGHWAY

Adjacent to the highway below Floral Park snow is never reliable enough to justify any development. In the upper portions of West Clear Creek and Woods Creek skiing is fine. Lacking avenue of transportation, it is hardly probable that any development will ever be in much demand.

CHAPTER 16

WEST SIDE OF FRASER RIVER, BERTHOUD PASS TO MARY JANE CREEK

CURRENT CREEK

Invisible on spring the headwall above the Current Creek glacial cirque is positively gruesome in appearance. Poised nearly four hundred feet above the cirque is a cornice of tremendous size. The very steepness of this cornice is a factor conducive to safety. The flatness of the floor beneath the cliffs also contributes to safety since it offers no very exciting skiing. Lower down there is some good skiing terrain.

On the headwall adjacent to the Continental Divide is a comparatively small slope entirely too steep for winter skiing but safe in late spring and early summer. This is now popular.

Current Creek does not compare favorably with Hoop Creek and the danger of accident, though not grave, is much more. I recommend no development but do not condemn encouragement of private enterprise.

SECOND CREEK

Second Creek is a valley offering fine open slopes naturally clear of trees as a result of an old forest fire. Unlike many other valleys equally clear, its orientation leaves it largely sheltered from the wind, enough so that snow textures are generally good. In its natural state Second Creek offers skiing facilities in many ways superior to those at naturally offered by Hoop Creek. However, with development in both, Hoop Creek will be in every way superior. Parking facilities can not easily be provided for Second Creek. I do not recommend Forest Service development but believe private enterprise in the form of special use permits should be conservatively encouraged.

FIRST CREEK

Skiing in First Creek is almost wholly confined to the valley floors. The steep rocky nature of the canyon walls makes skiing elsewhere far from good.

FIRST STREAM NORTH OF FIRST CREEK

This is a very small watershed bounded on both sides by very steep slopes. It is further unfitted for skiing by the highway which crosses it twice.

SECOND STREAM NORTH OF FIRST CREEK

The lower portion of this stream follows a steep, narrow ravine not well suited for skiing. The upper portion is in a small glacial cirque menaced by overhanging snow cornices.

I recommend no development.

THIRD STREAM NORTH OF FIRST CREEK (PARSENN)

This area I have selected for major development. See Chapter 30.

MARY JANE CREEK

Of all areas both suitable for extensive development and also close to the highway Mary Jane Creek is the largest.

Across the lower portion is a 160 acre tract of land owned by the Colorado Arlberg Club. This is the only deeded land between Berthoud Pass and West Portal.

Nearly all of the area above this tract is good naturally and through development can be made excellent. For further details see Chapters 21 and 32.

CHAPTER 17

WEST SIDE OF FRASER RIVER, MARY JANE CREEK TO VASQUEZ CREEK

WEST PORTAL

West and adjacent to the Moffat Tunnel dump is an east exposed hillside suitable for slalom. When the construction work is completed and if development progresses as I believe it will, there will be demand for clearing this hill.

COOPER CREEK

This area I have selected for major development. See Chapter 26.

FIRST WATERSHED NORTH OF COOPER CREEK

This area offers rather good natural skiing but should not be developed since it is so close to the much better Cooper Creek district, will be crossed by the Vasquez diversion canal and ends at the lower side over a railroad embankment.

VASQUEZ

West of the railroad flag station of Vasquez is a Forest Service fireguard running east and west. By reclearing this fireguard and widening it some near the bottom a very fine nursery hill would be ready for use. The superiority of the Cooper Creek district makes this not desirable, for the present at least.

HORSESHOE AND IDLEWILD TRAIL

At the point where the Horseshoe and Idlewild Trail leaves the Fraser valley and crosses over into Little Vasquez Creek, there is a good hill of northeast exposure suitable either for a nursery or slalom hill. Due to its proximity to both railroad and highway any development would of necessity have to be limited to stand thinning.

WOOD SPUR

Near the Railroad Flag station of Wood Spur the ridge separating the Fraser River from Vasquez Creek terminates in a steep little knoll about two hundred feet high. As a nursery hill supplementing the cottage camp of Hide Away Park it is well situated. The hill is all on privately owned land.

LITTLE VASQUEZ CREEK

Little Vasquez Creek is not sufficiently close to any avenue of transportation to justify any extensive public development. The skiing is good and the district offers a pleasing variety of terrain. It is probable that any development in the West Portal area will result in some patronage by skiers of the Hide Away Park Cottage Camp. This in turn will start some skiing in Little Vasquez Creek. It is not unreasonable to suppose that within a few years we may expect applications for special use permits here.

THE DIVERSION CANAL

The proposed Vasquez Creek Diversion Canal will cross the Cooper Creek area and Little Vasquez Creek. The damage this will do to skiing is very great. It will detract immeasurably from the recreational value of Cooper Creek. Though a drawback to Little Vasquez Creek it may be accepted there as a necessary feature and bridged over where necessary.

CHAPTER 18

VASQUEZ CREEK AND ST. LOUIS CREEK

VASQUEZ CREEK

The area drained by Vasquez Creek is larger than that drained by the Fraser River. In the main this district is decidedly superior to the Fraser for skiing, particularly in the upper portion. There is little likelyhood of development ever being justified due to lack of transportation.

ELK CREEK

Included within the Elk Creek drainage is much skiing terrain, which though good, is inferior to either Vasquez or St. Louis Creek. Since access is equally difficult there is not justification for development.

ST. LOUIS CREEK

St. Louis Creek is another large area comparing favorably with either the Fraser River or Vasquez Creek. Due to such existing improvements as a road and the Byers Ranger Station and the slopes of Byers Peak rising above the Byers Ranger Station, development would be possible at lower cost than Vasquez Creek.

DIVERSION CANAL

The proposed Vasquez Creek diversion canal will cross all the above districts and apparently nothing can be done to check the damage it will do. It would be highly unwise to plan or start any recreational development until after ~~they are~~ completed. it is

PART IV

PRIVATE IMPROVEMENTS AND PROPERTY LINES AFFECTING DEVELOPMENT

CHAPTER 19

THE WILLIAM E. EVANS PROPERTY

The William E. Evans property is a metes and bounds tract originally of 55.97 acres located in Section 10 of T. 2 S., R. 75 W.

In 1923 and 1924 two parcels of this land totaling 18.66 acres were sold to the Moffat Tunnel Commission for use as a railroad right of way and dumping ground for waste material removed from the tunnel.

The remaining 37.31 acres lies almost wholly in the Fraser River valley bottom, is adjacent to the West Portal railroad station, the Moffat Tunnel construction camp, the Idlewild Ranger station, the West Portal Lumber Company and the proposed Cooper Creek recreational development.

The property was deeded as a homestead, though there has never been any attempt to improve the land either for agriculture or stock raising.

Until construction work on the tunnel was begun in 1923 improvements were limited to a log road house and stable, both cheaply and badly built.

As work progressed on the tunnel, demand for houses was great. The owner built no houses himself but rented land to tunnel workers who built their own messy shacks. On leaving, the shacks reverted with the land to the owner, who continued to rent them to other tunnel workers. Though most of these shacks are not fit to stable a mountain burro, rents charged and collected were, and are, as high as twenty dollars a month.

Sometime during the period of tunnel construction the owner built a pool hall, commissary, and garage, all bad in design and construction.

I have gathered information from fairly reliable sources that this property during the past ten years has frequently grossed its owner more than ten thousand dollars a year, not one cent of which has been reinvested in worthwhile improvements to the property.

Most of the land is marshy. No effort has ever been made to properly drain it. Some of the shacks actually stand in this marshy ground which drains into the Fraser River. Conditions of sanitation and health are abominable. There is not one privy on the property which would stand a careful Board of Health examination.

A few years ago the owner, William E. Evans died leaving his property to his widow. She is now a sick old woman who has no desire to continue and is incapable of properly handling the project or improving it in a desirable manner. She has offered the land and improvements for $20,000.00.

The land has value other than its nuisance value.

In the event recreational development progresses as I believe it will, there will be demand for garage, cottage camp, stores, parking space, etc. The Evans property is ideally situated for such development.

Lacking sound direction this property will probably slowly improve, it can't become worse. It is unreasonable to suppose that left to its own devices it will ever be other than an untidy community.

The most satisfactory solution would be condemnation and reversion to the Forest.

The B. & S. L. Ry. would make no mistake in purchasing this land and leasing building sites under strict regulations.

CHAPTER 20

MOFFAT TUNNEL DUMP

The Moffat Tunnel dump lies within the boundaries ofan 18.66 acre tract purchased from William E. Evans by the Moffat Tunnel Commission.

The dump itself is not drawback to recreational development.

On completion of the original tunnel work in 1927 much of the equipment such as muck cars, "I" beams, etc. was set out on the dump and apparently abandoned. With the passage of years much more junk has been added to the accumulation of dereliats.

On the dump are many temporary structures, including the boxcar station, two cement mixing plants, a garage, and many sheds. All these detract seriously from the recreational value of the district but are no cause for anxiety. Certainly on completion of the construction work the railroad and the Denver Board of Water Commissioners will clean this up in a wholly satisfactory manner.

CHAPTER 21

MARY JANE PLACER CLAIM

The Mary Jane Placer Claim is a 160 acre metes and bounds tract lying in Sections 14 and 15 of the unsurveyed T. 2 S., R. 75 W. Through it runs Mary Jane Creek, the Fraser River and at the southeast corner the Berthoud Pass highway.

Patented as a mineral claim its original owners used it solely for the timber which was completely cut. Since that time it has been comfortably retimbered.

During the time of the Moffat Tunnel CONSTRUCTION there were thirty or forty horrible shacks built on the property.

In 1932 the property was purchased by Portal Resorts, Inc. This firm cleaned up most of the shacks and made the place much more presentable.

In 1933 the property was leased to The Colorado Arlberg Club. That organization built a club house on a site well out of view from the highway. The house is not as good as might be but was designed and constructed in a manner conducive to desirable alteration.

On the land are a few sheds, etc. which detract from the value, not only of the land but the entire district.

The Colorado Arlberg Club is attempting to acquire title to the Mary Jane Placer Claim and will probably be successful.

There is every reason to suppose that within a year or so this property will be clean and attractive in every respect.

CHAPTER 22

WEST PORTAL LUMBER COMPANY

Adjoining the Evans property on the west and the Berthoud Pass highway on the northeast is the special use permit of the West Portal Lumber Company.

On it are the usual buildings to be expected in a sawmill camp. None of them are exactly pleasing to the eye. Some are quite bad.

This permit has been a source of annoyance to the Forest Service. The permittee has never lived up to the terms of its lease.

On the lease facing the highway are four unsightly laborers' residences. District Ranger D. O. Johnson says these are condemned and will be torn down on completion of the construction work in the Moffat Tunnel. Mr. W. H. Wood, directing executive of the West Portal Lumber Company confirms this.

I suggest the Forest Service exercise its authority in the future on this matter more fully than has been done in the past.

CHAPTER 23

MOFFAT TUNNEL CONSTRUCTION CAMP

The Moffat Tunnel Construction Camp is located in Buck Creek Valley east and adjoining the Ed Evans property. This is a Forest Service special use permit issued to the Moffat Tunnel Commission.

On it are some forty odd buildings of various nature belonging to the Denver Board of Water Commissioners; The Denver and Salt Lake Railway; Utah, Bechtel, Morrison Company; and The Moffat Tunnel Commission. Most of these buildings are improved by running water supplied from Buck Creek and the Fraser River, a sewage disposal system and electric wiring.

Of these buildings fifteen could be converted to recreational use and improved to conform with Forest Service rules governing resort and residence permits. These are - the Railroad administration building, the Water Board administration building, one mess hall and two bunk houses belonging to the Water Board, one cottage belonging to the Moffat Tunnel Commission, three to the Water Board, and six to the railroad.

CHAPTER 24

RESIDENCES ON LEASED GROUND

JOHN H. BOLTON

Log cottage west and near the railroad in Cooper Creek. Log work is good, masonry fireplace very bad, wooden foundation. Owner is mail carrier.

HOWARD ALLEN

Log cottage west and near the railroad in Cooper Creek. Log work is good, no fireplace, wooden foundation. Owner is laborer in Moffat Tunnel.

[illegible] BURGESS

Frame cottage west and near the railroad in Cooper Creek. This is below standard in every respect. Owner is blacksmith at West Portal Lumber Company.

H. H. HARPER

Frame cottage west and near the railroad in Cooper Creek. This is below standard in every respect. Owner is a laborer in the Moffat Tunnel.

MRS. ELLA T. JOHNIE

Frame six room house located near and west of railroad north of Cooper Creek. This is well built, and attractively finished. It has running water and furnace heat. It is below present Forest Service standards in two respects. It is in plain sight of the highway and has a wooden foundation. The owner is a daughter of W. H. Wood.

PHILIP JURECKA

Frame cottage in Cub Creek completely hidden from all other development. This cottage is very attractive both outside and in. Except for a low wooden foundation it is fully up to present Forest Service standards. The owner, a foreman in the Moffat Tunnel, is a very desirable permittee.

CHARLES G. CARLMAN

Mixed log and frame cottage located in the Fraser valley near the mouth of Ferry Creek. This is well below standard, has not been used in recent years and is in bad repair. The owner is a civil engineer employed by the CCC.

CHAPTER 25

HIDE AWAY PARK

Hide Away Park is just another little cheap resort community that has recently sprung up. It is located on the Berthoud Pass highway about two miles north of West Portal near Vasques Creek.

It was started in 1931 by "Doc" Graves on patented land. He began it as a cottage camp. His buildings were cheaply constructed but, nevertheless, attractive. His venture proved moderately successful and other persons purchased adjacent land on which they erected cottages, stores, and filling stations varying in the extent of bad taste.

Following any development will be a demand for cheap accommodations somewhere nearby. Hide Away Park can supply them.

PART V

RECOMMENDATIONS FOR DEVELOPMENT

CHAPTER 26

COOPER CREEK

DESCRIPTION

Ranking first in demand and suitability for development is the Cooper Creek drainage area.

The land drained by Cooper Creek covers an area of about one square mile roughly rectangular in shape. Overlooking it at the southernmost end is a point of the spur dividing the Fraser and Vasquez watersheds. The high point has an elevation of 10,700 feet. The north (Cooper Creek) side of this point of spur is a steep heavily wooded slope approximately 1100 feet high, is comparable in shape to one side of a pyramid. At the base of this pyramid is a gently rolling bench or plateau extending from Cooper Creek on the west to the bluff overlooking the Moffat Tunnel dump on the east and the hillside draining into Cooper Creek on the north.

Along the base of the pyramid are several sites readily adaptable for use as practice ski jumps.

Overlooking Cooper Creek on the west is a steep wooded slope of fairly uniform gradient joining the west side of the pyramid on the south and the high point of an east sloping spur on the north. This east sloping spur terminates at the railroad north of Cooper Creek. The south exposed slopes into Cooper Creek are sparsely timbered and of widely varying gradients.

Adjacent to the railroad on the south side of Cooper Creek is a wooded hillside of widely varying gradients. Its upper south side coincides with lower north side of the above described bench or plateau.

The entire Cooper Creek area is suitable for skiing. There are no boulders or rock outcroppings large enough to hamper development.

Recommended improvements are listed in the order of their importance.

SKI PRACTICE ON "NURSERY" HILL

The nursery hill should have as its logical top the upper end of a ski tow. With this in mind I have laid out the boundaries of the nursery hill in two ways, one for a ski tow reading the highest point possible for safe and efficient operation and one for a ski tow reaching a knoll further down the slope. This one is proportionately smaller throughout, would cost less to clear, would involve a cheaper ski tow and would be entirely below the proposed canal.

SMALL NURSERY HILL

As the railroad tracks leave the Moffat Tunnel dump on the north there is an embankment on the west side. As a precautionary measure for safety no clearing or thinning should be done immediately above this embankment. As the railroad approaches Cooper Creek the embankment is gradually lessened until it is replaced with a fill. Beginning at a point on the west edge of the railroad right of way opposite the extreme north end of the embankment, the boundary proceeds in a general direction of South 20° west about 1000 feet to a knoll just below the canal right of way, thence in a general direction of west along the lower side of the canal right of way about 250 feet, thence in a general direction of north about 900 feet to the Howard Allen house, thence in a general direction of north 45° east along a trail to the railroad right of way about 400 feet. The boundary is marked by strips of red bunting tied to tree branches, except along the railroad right of way. The included acreage is about 15. At a cost of $ 15.00 per acre it can be cleared for $ 225.00.

LARGE NURSERY HILL

The boundary of the large nursery hill is identical with that of the small from the railroad embankment to the canal right of way. From there it proceeds across the canal right of way to an obvious point on the bench or plateau in a general direction of south 30° west about 700 feet, thence in a general direction of north 20° west to an old road on the south bank of Cooper Creek, a distance of about 900 feet, thence in a general direction of north 45° east along the old road to the railroad right of way a distance of about 1200 feet. The boundary is marked by strips of red bunting tied at frequent intervals to tree branches except along the railroad right of way. The included acreage is about 30. At a cost of $ 15.00 per acre it can be cleared for $ 450.00.

The point of intersection of the south boundary of the nursery hills and the railroad right of way is marked by a stake on which is written "USFS-S-CONTROL". From this point north 42° East 137 feet, thence north 48° East to north west corner of Idlewild Ranger Station Garage.

From "USFS-S-Control" a stake marked "USFS- C- CONTROL" bears N 37° W, 333 feet. This is located at the intersection of the north boundary of the smaller nursery hill and the N.P. right of way.

From "USFS-C-CONTROL" a stake marked "USFS-N-CONTROL" bears N 56° W, 132 feet. This is located at the intersection of the north boundary of the larger nursery hill and the N. P. right of way.

INSTRUCTIONS FOR CLEARING NURSERY HILLS

Railroad Right of Way

Remove such boulders as will endanger skiers.

Cut all stumps flush with ground.

National Forest

Inspect area for boulders. These can most satisfactorily be disposed of by piling in cairns. Cairns should be screened by clumps of trees. Select sites for cairns and mark trees to be left standing.

Liberally thin all standing timber except previously selected and marked clumps.

Cut all Aspen trees.

Remove all willows, roots included.

Cut all trees over small area covering middle of hill and runout at the base.

Increase thinning, beginning near margins proportionately as cleared center area is approached.

For trees to be left standing in exposed positions select small supple ones as wind may uproot large ones.

Cut all dry limbs from standing trees to a height of twelve feet.

Stack all debris in places where it may be safely burned in wet weather.

Cut all stumps flush with the ground and stack with other debris.

Gather all small boulders and pile them in cairns screened by the previously selected and saved clumps of trees.

Dynamite any large boulders and pile them in the cairns.

SHELTER HOUSE

At about the present location of the Howard Allen house or nearer the railroad right of way a shelter house is needed. To meet immediate needs this should have a floor area of about 25 by 75 feet and be equipped with modern water plumbing. Such a building up to Forest Service standard would cost about $5,000.00. It should be designed to permit easy and architecturally sound enlargement.

This should be built and maintained at the expense of the railroad.

TOILETS

In the event the railroad is at present unwilling to erect the shelter house then two good temporary toilets should be built also at the expense of the railroad.

Side tracked passenger trains will provide shelter but for obvious sanitary reasons the toilets in the cars must not be used.

SKI TOW

The ski tow will probably be a good commercial investment. To compensate the railroad for the non paying shelter house special use permit for the ski tow should be granted it. A ski tow of the desired length would cost about $4000.00.

SKI JUMP

At the base of the pyramid mentioned under "Description" a site marking the approximate location for a practice ski jump has been selected. Exact location should be selected only by experienced and qualified jumpers. Improvements would include clearing about one acre at a cost of $15.00 and erection of a take off at a cost of $25.00. The finished structure should be turned over to the U. S. Western Amateur Ski Association under a special use permit. Problems of maintenance and policing should be its.

STAND THINNING, THE CREATION OF A PARK

To complete the landscape improvements desired for the Cooper Creek area all the forest within the boundaries must be thinned and all ground obstructions removed.

The immediate realization of this is probably impossible. It is, however, the type of improvement which may be extended piece meal over a period of years, beginning modestly along the boundaries of the nursery hill. Each succeeding year it can be enlarged in the most desired direction. This work can be done at $15.00 per acre.

INSTRUCTIONS FOR CLEARING THE PARK

Cut all dead, diseased or deformed trees.

Cut all Aspens.

Remove all willows, roots included.

Thin timber where advantageous to forest.

Cut all stumps to a height of not over six inches.

Stack all debris where it may be safely burned in wet weather.

Gather all small boulders and lay them in gullies, where possible, otherwise pile them in cairns screened by dense clumps of trees.

Large boulders may be screened by not thinning timber around them. When they are in comparative open they should be dynamited and the fragments treated as above.

The presence of a ravine should, when possible, be indicated by a denser than average fringe of trees on either side.

Cut all dry limbs from standing trees to a height of twelve feet.

HOTELS

It is probable that the Ellis F. Lowrie house will be converted for use as a small lodge if the Forest Service permits such action. This I recommend as a test of demand. Due to the exposed location Forest Service regulations will not permit enlargement.

It has been suggested that the new railroad station be built to include restaurant and hotel accommodations. This would probably be successful in spite of the noise from trains.

A beautiful hotel site can be found on the plateau or bench above the nursery hill.

AUTOMOBILE PARKING

Many of the winter sports improvements in Cooper Creek will come by automobile if parking space is provided. It is probable that within a year or so the railroad will be unable to take care of the Sunday demand. Parking space for a great many cars can be provided only on the Evans property or Forest property north.

Since the success of the venture will depend largely on the financial participation of the railroad I recommend no parking until such time as the railroad can not supply transportation demands and good service.

SUMMER USE

There is nothing unique about Cooper Creek as viewed from a summer angle, but a pleasant well managed resort should do as well as any of the many others lacking unique attraction. As the clearing of the park nears completion the easy, arbitrary choice of route through the forests should be an attraction to horseback riders.

CHAPTER 27

HOOP CREEK

DESCRIPTION

Above and west of the Northood Pass highway Hoop Creek flows through a huge natural arena roughly oval in shape and ~~xxxx~~ covering about four hundred fifty acres. Of this over half is above timberline. The valley is broad, marked at intervals by the morraines of a receding glacier. The hillsides both north and south are hummocky in character, offering a wide and pleasing variety of skiable slopes.

To the west overlooking Hoop Creek, is a conical shaped point on the Continental Divide. It is too steep and rocky for good skiing except in late spring but is always a beautiful and inspiring background for any recreational activity.

Further west and partially hidden by the conical point is another spur of the Continental Divide. This marks the south end of the headwall of a glacial cirque. This cirque is menaced in winter by huge overhanging snow cornices. However, the cirque is separated from the lower valley by a windswept terminal morraine acting as a partial barrier to skiers. I recognize the danger of this area but consider it less than that of many other places skiers may go to. By developing this area we are not exposing skiers to additional risks but improving an area of comparative safety.

The lower timbered portion of the area is well wooded with Englemann Spruce growing in a manner picturesquely typical of forests bordering timberline.

Throughout the entire area are many rock outcroppings, some large enough to be classed as cliffs.

Improvements are listed in the order of their importance.

AUTOMOBILE PARKING

Before any other development will prove of value, automobile parking space must be provided. This can be provided near the intersection of Hoop Creek and the highway. Construction should be simple, requiring no machinery other than plows, fresnos and graders. This should be done as early in the summer as possible to allow time to correct subsequent settling before winter.

SKI PRACTICE OR NURSERY HILL

The nursery hill is surveyed as follows. Beginning in the southeast corner of a small glade about 1000 feet west of the highway the boundary proceeds in a general direction of South 10° west about 700 feet to timberline, thence in a general direction of west along timber line about 300 feet, thence in a general direction of north 10° east about 700 feet to the southwest corner of the above described glade. The boundary is marked by strips of red bunting tied to tree branches at frequent intervals. This nursery hill is far from uniform in gradient. I suspect from the topography that there are several rock outcroppings within its limits. In clearing care should be taken to preserve natural appearance. Clumps of trees should be left in place. All rock outcroppings should be screened by trees left standing. The illusion of primitiveness may be retained by leaving such clumps in their present natural state. When clearing is done all trees and stumps should be cut to within four inches of the ground. All debris should be piled where it may be burned safely in wet weather. Loose rocks should be cast without particular care into clumps of trees.

The nursery hill covers an area of nearly 5 acres. Estimated cost of clearing is $75.00 at $15.00 per acre.

SHELTER HOUSE

Almost as important as the parking space and nursery hill is a shelter house.

The logical place for this shelter house is on the north side of the glade at the bottom of the nursery hill. Since this is also a choice hotel site I recommend it be built in a less conspicuous location nearer the highway. To meet immediate needs for this should have a floor space of about 25 by 75 feet and be equipped with up-to-date chemical toilets. This shelter hut should have an attendant living on the place so modest living quarters should be included in the plan. The estimated cost is $5000.00.

I recommend that the finished structure be leased to the U. S. Western Amateur Ski Association under a special use permit for a nominal figure.

TRAIL FROM HIGHWAY TO MURPHY HILL

This is unsurveyed. There is probably already cleared some old trail not discernable through the deep snow. As the gradient is gentle almost any route would be satisfactory. This trail should be about 12 feet wide, all turns of wide radius. The length is about 1000 feet. The estimated cost is $75.00.

TRAIL FROM MURPHY HILL TO TIMBERLINE TOP

This is surveyed. It follows roughly the 11,300 foot contour and is marked by strips of red flagging tied to tree branches at frequent intervals. This trail should be cleared to a width of 10 feet, all stumps cut to within four inches of the ground, all wind falls removed. I do not think any rock outcroppings or similar obstructions will hamper construction. If they should, the trail may be rerouted to avoid them. The trail is about 3/4 miles long. Estimated cost is $90.00

SKI TOW

A ski tow should prove a good paying investment and one which the U. S. Western Amateur Ski Association can finance. I recommend special use permit be granted the U.S.W.A.S.A. for this purpose. A ski tow of the length needed for this site will cost about $2500.00.

SKI JUMP

I recommend that no ski jump be built in this place now or ever.

STAND THINNING, THE CREATION OF A PARK

Systematic stand thinning such as I have recommended for the Cooper Creek area is entirely out of place in this district. To retain the natural appearance of forests bordering timberline, thinning should be done in such a manner as to completely remove all timber where cutting is done but leave many clumps of dense trees. In most instances the percentage of cutting should increase as timberline is approached, thus further accentuating the natural state. Care should be taken to invariably leave a dense growth of trees over any rock outcropping not only for sake of appearance but also as a safety measure for the skiers. Such thinning is of no benefit to the forests as regular stand thinning is, but the involved area is not large enough to make this particularly worthy of consideration. Trees bordering timberline are frequently

twisted and gnarled to a point where they have no value as saw logs. As picturesque contributors to the timberline scene their value is great and they should be spared when possible even though dead. Though I hope to see thinning of this sort done throughout the entire area I urge the exercise of great restraint. A tree is much more easily cut than grown. Estimated cost, $1500 per acre.

HOTEL

This is unquestionably the choice site for a hotel of the entire district. I do not believe it will be necessary for the Forest Service to seek a builder. It is almost certain that within a year or so a selection can be made from a list of several applicants.

ROAD FROM HIGHWAY TO HOTEL

Since the principal skiing activity will always be on the south side of Hoop Creek the road must be on the north side.

SUMMER USE

Good summer use of a hotel seems assured since the Berthaud Pass Inn is already receiving a good patronage in that season.

The setting of upper Hoop Creek is exceptionally beautiful, and offers a type of scenery not usually accessible to automobiles.

CHAPTER 28

BERTHOUD PASS

BERTHOUD PASS INN

Berthoud Pass Inn should be torn down and replaced with a good building. Because of the terms of the lease this seems improbable in the immediate future.

There is definite need of a shelter and restaurant at this location. Men of sound judgment have gone furhher and approved of the sitefor a good hotel. On this score I am doubtful because I consider other sites in the vicinity as superior, particularly Hoop Creek. There may be room and demand for both. Time will tell.

The patronage of the Inn is mostly from the sort of people who frequent lunch counters. Following a sure course a restaurant of this sort should be built. There is an unnecessary practice of people bringing their skis into the Inn to wax them. This is a habit which can not be easily broken. Separate from the dining room should be a roughly finished room reserved for this purpose. It seems only fair that a nominal charge be made for its use.

A strong argument against construction of anything elaborate is the difficulty of securing running water in winter.

I recommend that no permit be granted for additional buildings or enlargement of present buildings unless ample assurance is given that all present structure are improved to standard specifications. I further recommend that no permits be granted for enlargement or additional building on the present lease, but that first the old lease be cancelled and a new one signed.

AUTO PARKING

There is needed parking space for an additional 200 cars. At the present time there is a broad parking space directly in front of the Inn. It has been suggested that additional

space be provided through widening the present lot. This would unquestionably be desirable from the Inn operator's view point but would be less efficient and more expensive in construction and maintenance than an extension of the present broad space in both directions along the highway.

SKI TOW

Because of the prominent position of the nursery hill any ski tow should be designed so that it can be completely dismantled during summer.

I recommend that no permit be granted for the purpose of erecting and maintaining a ski tow except to the owners or operators of the Inn, that the permit be for one year only and renewed only if certain changes be made in or on the Inn itself. Such action might give the Forest Service a leverage not included in the lease.

A ski tow for the Berthoud Pass nursery hill can be built for $1500.00.

SKI JUMP

The Berthoud Pass nursery hill is not large enough to permit both jumping and other type of skiing. Any structures would be unsightly in summer. Weather and snow conditions are not favorable for jumping. I recommend that no jump be built.

SUMMER USE

The Berthoud Pass Inn has been proven popular in summer.

CHAPTER 29

BOTTOM OF LOWER SWITCH BACK - WEST SIDE

NURSERY HILL

Because of traffic congestion skiers using the ski trails, frequently wait for protracted periods before automobiles take them back to Berthoud Pass. A small nursery hill is needed. This I have located about 100 feet south of the hairpin bend in the highway. It covers about one acre of ground, is marked by strips of red bunting tied to tree branches at frequent intervals. Estimated cost $20.00.

AUTOMOBILE PARKING

Needed is parking space for 50 cars. This should be provided easily with Fresno and grader.

PUBLIC CAMP GROUND

This site may have considerable value in summer. As a test to this theory I recommend construction of a standard Forest Service public camp ground.

CHAPTER 30

PARSENN

DESCRIPTION

About one mile and one half west of the north end of the last switch back on the Berthoud Pass highway is a high point on the ridge dividing Vasquez Creek and the Fraser River. This is identifiable on the Fraser Quadrangle by a triangulation stations and bench mark "13065." This point is known to skiers as "Parsenn" because of a supposed similarity to the Swiss mountain of the same name. Parsenn, like almost all other high points above timberline, is mostly swept bare by the wind but on the east is a fine, clear expanse of snow, which may be relied on any winter.

To the northeast of Parsenn are the headwaters of an unnamed stream emptying into the Fraser River near a U.S.G.S. bench mark "9476". This stream I have given the temporary name of Parsenn Creek.

Upper Parsenn Creek is in a "U" shaped glacial valley and cirque, unique in the complete absence of a headwall cliff. Almost every square foot is skiable. There is no risk from avalanches. This upper valley and cirque cover an area of about one half square mile.

Lower Parsenn Creek flows through a narrow steep walled ravine, typical of hanging valleys, to end in a final plunge to the edge of the highway.

RACE COURSE

In the whole area from Berthoud Pass to West Portal there is only one possible route for a race course both steep and high enough to meet international standards. That is from Parsenn down Parsenn Creek to the highway. It has been surveyed as follows: -

From the summit of Parsenn the race course proceeds in a general direction of north 15° East, traversing the north side of the ridge dividing Parsenn Creek and the next stream south to timberline, (the race course enters the forest at a point about 400 feet north of the above described ridge) thence in a general direction of north 20° east traversing down the mountainside of about 2000 feet, thence along the south bank of Parsenn Creek to a point above and within sight of the Berthoud Pass highway, thence down a steep traverse to the south followed by a steep traverse to the north ending at the highway.

From timberline to the highway the race course is marked at frequent intervals by strips of red bunting tied to tree branches.

In marking the route at one place I unintentionally crossed to the north bank of Parsenn Creek for a short distance. This should be changed to the south bank.

The race course should be cleared to a uniform width of fifteen feet. Wherever possible it should be strait. All curves should be of as wide radius as possible. Stumps should be cut to within six inches of the ground.

The race course comes out on the highway at a point 143 feet south of highway station "440".

Following policies as I recommended them this is not as wide as ultimately necessary. Desired improvements can be laid out in the winter following construction. This race course is 2 miles long and will cost $20.00.

Up Trail

From the north end of the lower switch back on the west side of Berthoud Pass the trail proceeds up the draw in a general westerly direction about 150 feet, thence in a general north-easterly direction, traversing up the mountainside on a gradient averaging 13% until it reaches the Parsenn Creek drainage area, thence in a general north-westerly direction traversing up the mountainside on a very gentle gradient to the Parsenn Race Course. It is marked by strips of red bunting tied at frequent intervals to tree branches.

The trail should be cleared to a width of ten feet. All stumps cut to not over six inches from the ground.

Also starting from the same place on the highway is another surveyed lower trail leading to Mary Jane Creek. This is not to be built since right of way through the Mary Jane Placer Claim was refused.

The up trail will provide a good easy route to the summit of Parsenn and a shorter and safer route to the Mary Jane Creek Race Course than the present First Creek route. This is one mile long and will cost $125.00.

SHELTER HUT

Before the Parsenn Race Course can be satisfactorily used for major competitions a shelter hut at the summit will be necessary. This is needed to protect racers, starter and judges from exposure while waiting time to start and as a place to wax skis for the race. On the summit of Parsenn is plenty of stone for building material. Cost would be not less than $1800.00.

CLUB HOUSES AND RESIDENCES

Though quite isolated the natural excellence of the upper valley will make the district quite popular when trails make access easy.

It is probable that within a year or so after the trails have been built groups and individuals will ask for building permits. I recommend these be granted but only under strict regulations. It is possible this district may develop as one of exceptional recreational value.

AUTOMOBILE PARKING

Immediate needs will include two small parking lots.

One at the north end of the lower switch back to care for 5 cars.

One at the lower end of the race course to care for 5 cars.

Article VII

There will be no summer use of this district unless cabins are built on special use permits. If these are well and attractively built their owners will use them perhaps as much in summer as in winter.

CHAPTER 31

PARRY CREEK

When and if the Parsenn Race Course proves popular there will naturally be some concentration of activities in the valley below. This will be followed by demand for improvements needed to make other types of competition possible. It is probable that if the U.S.W.A.S.A. gets well established that it will ask for a special use permit to build a club house, other small clubs may follow suit. Following this will be non-competitive activity and demand for trails into the Parry Creek cirques.

At the site of the Charles Gabelman special use lease is an area well screened from the highway, suitable and large enough to care for several good sized buildings.

Above, to the south, the Fraser River flows through a very broad valley in which are several good sized beaver ponds. It would be no trick to make a good pond suitable at least for ice skating, probablymxk also fishing.

At the mouth of Parry Creek is a large alluvial deposit, possibly a lateral morraine on which could be built a ski jump and slalom hill, both out of sight of the highway. Directly across, and in plain view of the highway, is a steep hillside also suitable for either jumping or slalom except for an undesirable west exposure. Most tournaments are held in the afternoon. The sun shining in contestants eyes is not desirable.

At no place in the entire valley could parking space be provided for as many cars as here.

The summer use should be at least as great as winter.

The value of this district would be far greater if the highway followed the east instead of west side of the valley.

I make no recommendations for this district, merely point it out as one of potential value.

CHAPTER 32

MARY JANE CREEK

PRIVATE DEVELOPMENT

The presence of the deeded Mary Jane Placer Claim strategically located to block entrance into the upper Mary Jane Creek area may prove an actual advantage to the development of the entire Berthoud Pass - West Portal area.

For a high class resort, the district is located too near the large center of population in Denver. The district will always be a "week-end resort," deserted during the midweek and filled to overflowing Saturday and Sunday. Such a situation is not desirable and can not be profitable to a high class resort. A high class resort must draw its patronage principally from out-side Denver, patrons who will stay one or more weeks at a time. Such a venture must be run entirely separately from other developments. It is possible in this district only on the Mary Jane Placer Claim or in St. Louis or Vasquez Creek.

From a hotel on the Mary Jane Placer Claim the Forest Service will derive no revenue but neither will it be at any expense. A high class investment, even though on private land, will indirectly increase values around it and encourage other good development.

THE COLORADO ARLBERG CLUB

Disregarding the possible entrance of commercial enterprise, the Colorado Arlberg Club will probably, over a period of years, reach very much the same goal. Already there are a number of out of state persons using the club house in midweek as guests of the club. If this continues and increases as seems logical, then before long, outsiders will of necessity become members and a high class, semi-public development begin.

LANDSCAPE IMPROVEMENTS

On the deeded land much in the way of improvements can and will be done. I recommend that the Colorado Arlberg Club be asked to place their landscaping to conform with Forest Service standards. This I am sure they will do.

Above the deeded land on the Forest no improvements will be needed except stand thinning. This I recommend at private expense.

PARKING SPACE

There is need of parking space for 25 cars opposite the club house.

This is for the benefit not of the club but the individual members who are as much entitled to free parking space as any other skiers.

SUMMER USE

Much of the Mary Jane Placer Claim is still littered with the refuse left over from the abuse it received during construction of the Moffat tunnel. Not until this is cleaned and roads into the property built can any summer use be expected.

CHAPTER 23

BUILDING PERMITS

Except for shelter huts I recommend that until development has established a definite trend and a clearer picture of activities is available, that all building permits be limited to certain districts set aside for specific uses listed as follows -

COOPER CREEK

Ski Tows - one permittee, D. & R. L. Ry.
One hotel
Public shelter houses as needed
One club house - U.S.F.A.S.A.

POOP CREEK

One ski tow - U.S.F.A.S.A. or hotel owner
One hotel and necessary allied buildings
One shelter house - U.S.F.A.S.A.

BERTHOUD PASS

One hotel or restaurant
One ski tow - hotel owner or operator

LOWER END OF LOWER SWITCH BACK

One hotel and necessary allied buildings

UPPER FARSENN CREEK

Club houses (all clubs)
Residences

FRASER VALLEY OPPOSITE PARSONN CREEK

Club houses (all clubs)
One hotel and necessary allied buildings

MOFFAT TUNNEL CONSTRUCTION CAMP

Club houses (all clubs)
Residences

If any of the present buildings in the Moffat Tunnel Construction camp are to be leased, provision for improving them to meet Forest Service standards should be made.

In the summer of 1935 Lincoln Reed and S. E. Sandvos applied for a special use residence permit in Current Creek. Through a misunderstanding they actually began work before a decision was reached. The permit was refused. I do not particularly favor development in Current Creek but under the circumstances feel that a permit should be granted but not a residence permit. I have advised Sandvos to form a club and apply for a club permit.

Though I do not recommend immediate permits any place except in the above mentioned places, I call attention to the excellence of Little Vasquez Creek for this type of development. When and if the other residence districts are firmly established then use of Little Vasquez should be encouraged.

An excellent site for a small club or a residence is the saddle in the ridge dividing Mary Jane Creek from the Fraser River. To avoid friction a permittee agreeable to the Colorado Arlberg Club should be selected for this site.

No buildings should be permitted which will interfere with the skiing.

If a <u>particularly desirable</u> person or group applies for a building permit in any other location than those listed above and the building is well <u>above standard</u> I recommend granting a lease.

CHAPTER 34

TRAFFIC PROBLEMS

PARKING

In addition to the parking spaces listed under various projects, lots are needed as follows: -

Floral Park - 50 cars
Lower End of Upper Switch Back, West Side - 10 cars
Current Creek - 3 cars
First Creek - 3 cars

HIGHWAY

If the desired parking lots are built and kept free of snow I recommend that parking be strictly forbidden except in the lots and that the law be rigorously enforced.

An exception will have to be made on such days as downhill races are held either on the Mary Jane Creek race course or on the Parsenn race course.

BUSSES

Busses serving the "downhill only" ski trails on Berthoud Pass should have spaces in the parking lots where needed, reserved and plainly marked for them to turn around.

It has been suggested that busses supplement the railroad by providing transportation to Berthoud Pass from West Portal. Such a plan would fail due to the shortness of the haul and competition from the Cooper Creek ski tow.

RAILROADS

Snow trains must be run on schedule. Skiers will not stand for trains repeatedly held up for block orders.

No train leaving Denver before eight in the morning will prove consistently popular. Trains should be back in Denver by seven p.m. at the latest.

It is improbable that Sunday snow trains can ever be run in more than two sections. When peaks are reached additional traffic can be obtained Saturdays and holidays.

A fair, daily business may be built up if the present schedule of the east bound afternoon train is postponed one hour.

All snow trains should be equipped with "extra fare" cars.

CHAPTER 38

TRAILS

LITTLE VASQUEZ

If Hide Away Park becomes popular as a place for skiers to stay over-night, there will be demand for a trail down Little Vasquez Creek, connecting Hide Away Park with upper Parsenn Creek and the upper end of the Mary Jane Creek Race Course. This trail is not marked but can easily be laid out when and if construction is desired.

Beginning at the top of the Mary Jane Creek Race Course the trail should be cleared west into the head of the east fork of Little Vasquez Creek, thence following the easiest reasonably strait route down on the east side of Little Vasquez to Wood Spur. Over half this route is already cleared as a logging road. Opposite Cooper Creek on the west is a logging road leading back into Cooper Creek. This should be repaired.

I recommend no action until demand warrants.

RIDGE

The Ridge Trail is intended as a connecting route for the upper portions of Cooper Creek, Mary Jane Creek and Parsenn Creek.

As surveyed the Ridge Trail begins at the upper End of the Mary Jane Creek Race Course at a point identifiable on the Fraser Quadrangle by a bench mark 10853. From there it proceeds in a northerly direction along the crest of the ridge to the high point overlooking Cooper Creek (elevation 10,700), thence in a general southwesterly direction traversing down the mountain on a gradient averaging 16% for about 1200 feet to a hairpin curve

thence in a general northerly direction traversing down the mountain on a gradient averaging 16% for about 1800 feet to a hairpin curve located a short distance within the Cooper Creek drainage area, thence in a general westerly direction traversing down the mountain on a gradient averaging 16% for about 250 feet to the ridge, thence strait down the ridge in a general northwesterly direction for about 150 feet to the saddle between points 10,700 and 10,185.

This portion of the trail is marked by strips of red bunting tied to tree branches at frequent intervals.

The upper extension of this trail, that which connects the upper end of the Mary Jane Creek Race Course with timberline is not marked. The trail should be cleared from point 10,953 along a fairly uniform gradient traversing the mountainside to the saddle dividing Little Vasquez from Parsonn Creek. This saddle is due south of point 10,953 about 5/8 of a mile.

This trail should be cleared to a uniform width of twelve feet except at hairpin turns where it should be ~~cleared to a uniform width of twelve feet except at hairpin turns where it should be~~ fanned out to permit skid turning. This trail is about two miles long and should cost $250.00.

I recommend construction of this trail only if the Cooper Creek and Parsonn developments are carried out.

FRASER VALLEY

Desirable is a trail leading from the north end of the lower switch back on the Berthoud Pass highway north traversing the mountainside to the saddle in the ridge dividing Mary Jane Creek from the Fraser River, thence down Mary Jane Creek to the Colorado Arlberg club house, thence along the west side of the Fraser Valley to Cooper Creek. This I surveyed and marked by tying strips of red bunting at frequent intervals to tree branches.

I asked the secretary of the Colorado Arlberg Club if it would grant right of way for a public trail. This was refused. I therefore recommend no action, but do recommend permitting the Colorado Arlberg Club to build the trail themselves if they wish to do so.

CHAPTER 56

VASQUEZ & ST. LOUIS CREEKS

No development in either Vasquez or St. Louis Creek seems possible except for shelter huts or expensive, high class, resort development. The chance of any project of the latter sort seems remote, too remote to be worthy of any particular consideration.

There may be demand for special use residence or club house permits. These should be granted only after a very careful examination. The inaccessibility of the district would be apt to discourage use of even the best improvements.

CHAPTER 37

THE DIVERSION CANALS

The water to be put through the Moffat Water Tunnel must be picked up from the various tributary streams of the Fraser River either by conduit or an open canal.

There are two canals, one to pick up water from the Fraser River and Jim Creek and one to pick up water from Vasquez, Elk and St. Louis Creeks.

The Fraser and Jim Creek canal has been dug. As seen from below it looks like a huge highway grading. From the upper side of the cut to the lower side of the built up embankment the mountainside is torn up for a width frequently approaching 100 feet. The canal itself appears cavernous.

I have skied along the lower embankment of this canal for its entire three mile length. There are almost no places where it can be crossed on skis or otherwise in winter even with great difficulty. Its presence almost completely ruins the skiing above and below it for its entire length.

Aside from the damage it has done to the recreational value of the forest it is a grave menace to the forests and land through which it passes. It is certain to start erosion, now almost impossible to check or correct. Though the canal has been built less than a year it has already become necessary to clear it of rock and dirt & debris with a steam shovel!

Surveyed and right of way cleared is the Vasquez and St. Louis Creek diversion canal. This canal will end in a siphon directly across from the west portal of the tunnel. Above it will traverse the mountainside across the Cooper Creek area before reaching Vasquez Creek.

If this is dug and left as an open canal it will almost completely ruin the recreational value of Cooper Creek. If placed in a buried, graded over conduit most of the value will be retained.

The effected area will be from the Board of Water Commissioners' station 1750 at the top of the siphon to station 6500 at the north end of the Cooper Creek drainage area, a distance of 4750 feet.

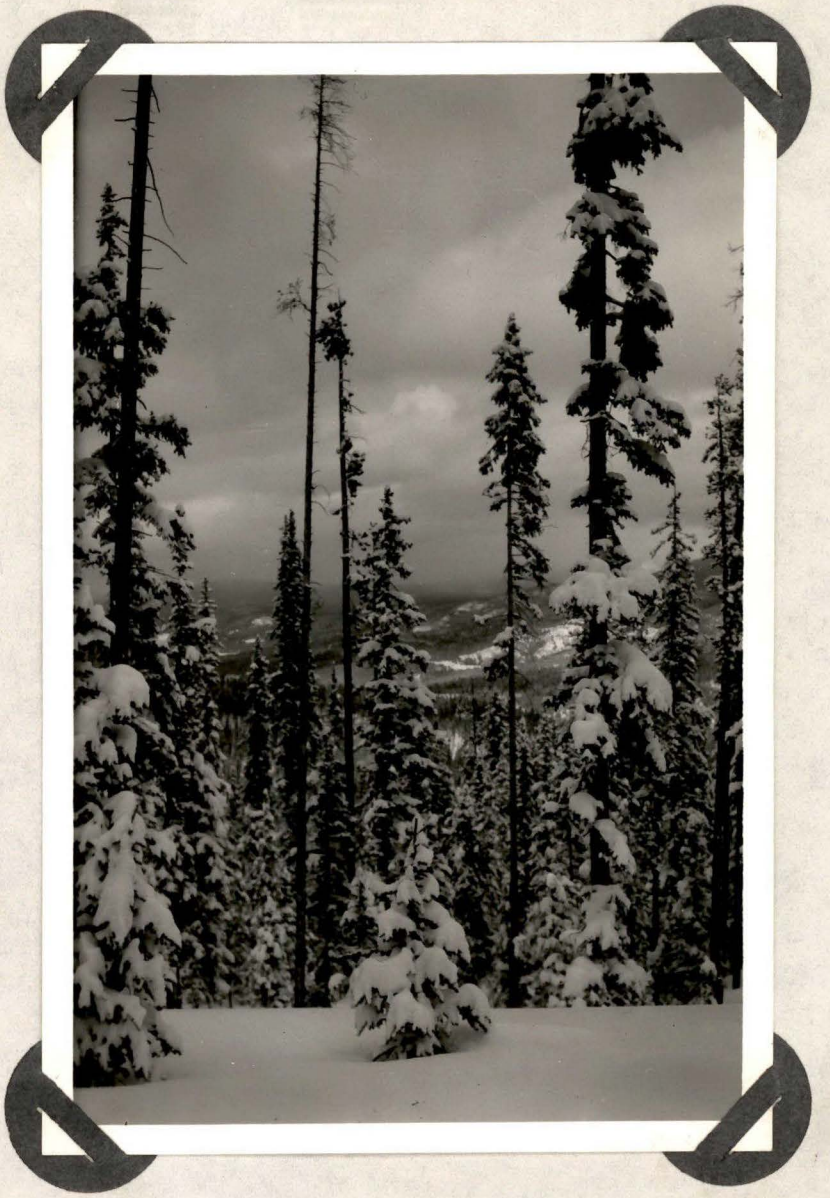
It is my hope that for the entire distance the water be carried in a buried conduit. In the event this can not be carried out, I suggest two alternative plans. First, that the canal from the top of the siphon to Cooper Creek be placed in a buried conduit. This would be about 3250 feet long, from station 1750 to 5000. This would protect all north and east exposed slopes. Second, that the canal from station 2600 to 4000 be placed in a buried conduit, a distance of 1200 feet. This protects the nursery hill only.

I suggest these alternative plans with reluctance. I urge that everything be done to make possible burying the canal for the entire distance across the effected area.

An argument in favor of the open canal is the surface runoff it picks up. In this particular instance the hillside drainage is from a very small area so it should make very little difference.

If the open canal is built we may find that due to this very surface runoff the Water Board may seek to prevent recreational activity above the canal.

It has been authoritatively stated the open canal will be impractical because of the dauring effect of snow and ice in winter and the almost impossible task of clearing it.



Timbered slope in upper Cooper Creek. Trees as they are make highly suitable skiing terrain.
April 5,1936

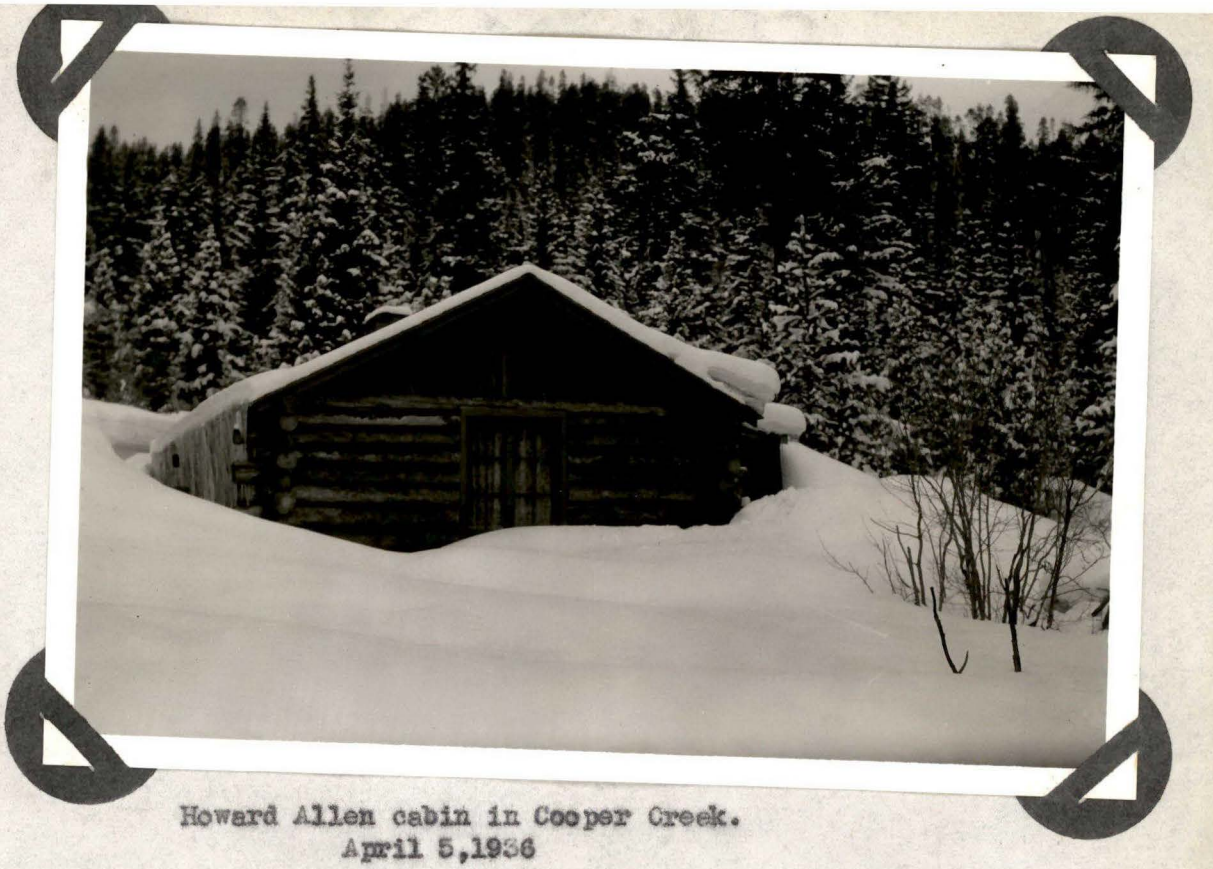
High point in Cooper Creek area as seen from north. March 28,1936

Cooper Creek "nursery" hill as seen from north bank of Cooper Creek. April 3,1936

Cooper Creek Nursery hill as seen from railroad tracks
April 3,1936

Cooper Creek "nursery" hill as seen from West Portal Lumber Co. commissary. April 3,1936

Cooper Creek "nursery" hill as seen from highway opposite Idlewild Ranger Station. April 3,1936



Howard Allen cabin in Cooper Creek.
April 5,1936

John Bolton cabin in Cooper Creek.
April 5,1936

Ella F. Lowrie house in Cooper Creek.
April 3,1936

Railroad opposite south end of Cooper Creek "nursery" hill. April 3,1936

Right of way for Vasquez diversion canal accross Cooper Creek area. March 28,1936

Fraser diversion canal as seen from Mary Jane Creek April 19,1936

Fraser diversion canal in Jim Creek area
April 4,1936

Fraser diversion canal in Buck Creek area
April 4,1936

Fraser diversion canal opposite Mary Jane Creek
April 4,1936

Fraser diversion canal above Moffat Tunnel construction camp. April 4,1936

Siphon accross Jim Creek. April 4,1936

Fraser diversion canal in Jim Creek area
April 4,1936

West Portal depot. April 6,1936

Concrete mixing plant at West Portal
April 6,1936

Condemned laborers cottages on West Prtal Lumber Co special use permit. April 6,1936

Filling station and commissary on West Portal Lumber Co. special use permit. April 6,1936

Pool hall and hotel on the Wm. E. Evans property
April 6,1936

Shacks on the Wm. E. Evans property at West Portal
April 6,1936

Typical residence in Moffat Tunnel Construction Camp
April 19,1936

Moffat Tunnel Construction Camp, showing school house,
D. &. S. L. Ry. administration building, Denver Water
Board administration building. April 19,1936

View of continental divide north of Berthoud Pass as seen from headwall of Second Creek. April 23,1936

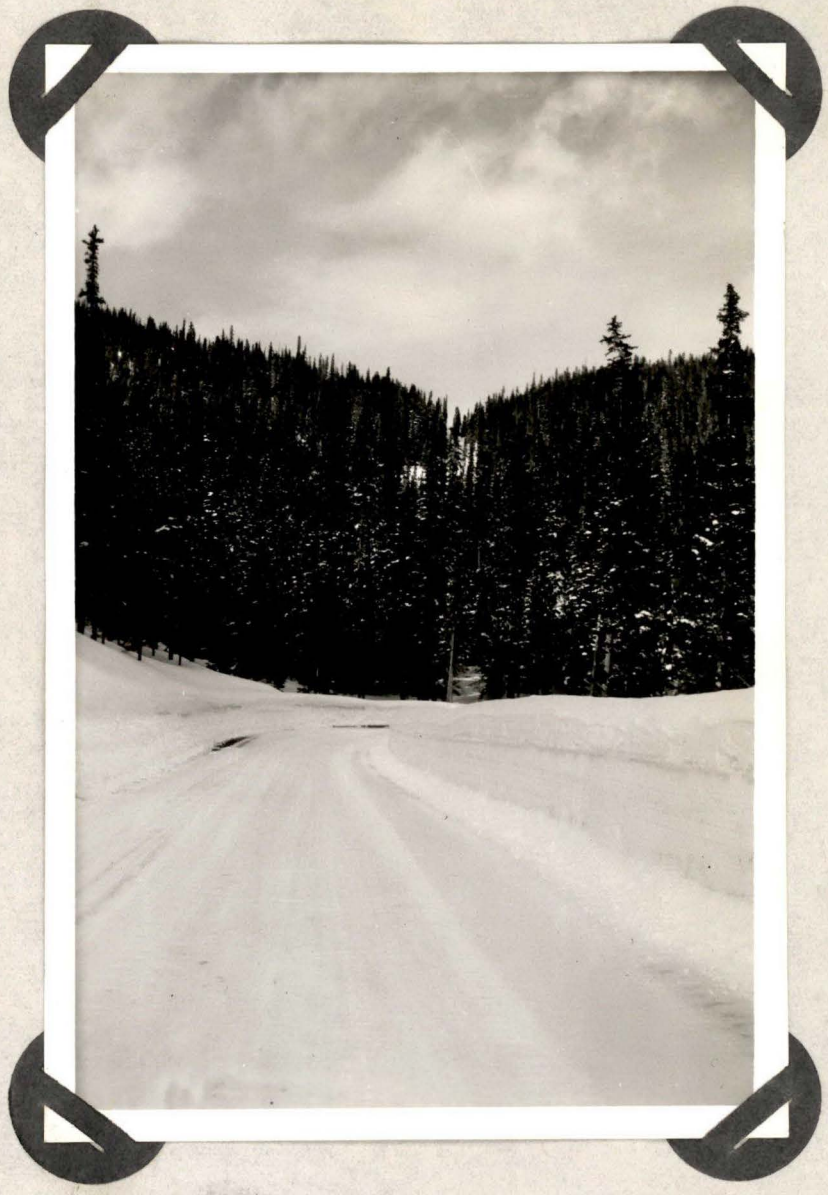
Broad area in Fraser valley at lower end of Parsenn Creek
April 29,1936

View of Second Creek. April 7,1926

View of Second Creek. April 7,1926

Naturally clear hillside on Current Creek below the highway. April 7,1936

Floral Park, showing area available for parking.
April 7,1936



Hoop Creek above Floral Park
April 7,1936

Thinnly timbered hillside at Floral Park.
April 6,1936

View up Fraser River from highway just above last switch back. April 24, 1936

View up Fraser River from highway just below last switch back. April 24, 1936

Scene in Hoop Creek. April 27,1936

Headwall of upper basin in Hoop Creek as seen from the continental divide. April 23, 1936

Conical point on headwall of Hoop Creek as seen from the continental divide. April 25,1936

Highway at Hoop Creek. April 25,1936

Scene in Hoop Creek. April 27,1936

Scene south of Hoop Creek at Timberline.
April 25,1936

South side of Hoop Creek as seen from continental divide. April 25,1936

Scene south of Hoop Creek at Timberline. April 25,1936

View toward Berthoud Pass from Timberline above Hoop Creek
April 25,1936

West exposed slope east of Berthoud Pass. Note sparceness of snow. April 24,1936

East exposed slope west of Berthoud Pass. Noteprofusion of snow. April 24,1936

Berthoud Pass Inn. April 22,1936

Cottage on Berthoud Pass. April 22,1936

View from Berthoud Pass.
April 21,1936

View from Berthoud Pass. April 21,1936

Headwall of Current Creek. April 23,1936

Current Creek cirque as seen from the continental divide
April 23,1936